# Looking After the Interests of the Defense Acquisition Workforce

*Defense AT&L* Interviews
## Dr. David S. C. Chu
*USD for Personnel and Readiness*

Also

Making a Difference for Asset Visibility, Management, and Accountability

First Things First: The Importance of Risk Identification

Extending the Enterprise: Linking Supply with Demand

Partnership Intermediaries and DoD Technology Transfer

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# Looking After the Interests of the Defense Acquisition Workforce

## David S. C. Chu

### *Under Secretary of Defense for Personnel and Readiness*

**D**r. David S. C. Chu, who was sworn in as the under secretary of defense for personnel and readiness on June 1, 2001, is the secretary of defense's senior policy advisor on recruitment, career development, pay, and benefits for 1.4 million active duty military personnel, 1.3 million Guard and Reserve personnel, and 680,000 DoD civilians. Chu is also responsible for overseeing the state of military readiness; the $15 billion Defense Health Program; Defense Commissaries and Exchanges with $14.5 billion in annual sales; the Defense Education Activity, which supports over 100,000 students; and the Defense Equal Opportunity Management Institute, the nation's largest equal opportunity training program. In February, Chu met with Marcia Richard, a DAU professor currently on the staff of the Assistant Secretary of the Army (Acquisition, Logistics and Technology) in the strategy and performance planning division, and talked about his many and varied responsibilities to DoD leadership and to the AT&L workforce.

**Q**

*Dr. Chu, your position requires you to wear many hats. Can you give our readers an overview into the major duties and responsibilities of your job?*

**A**

They are varied, as you know. They range from retention and recruiting issues, what the pay table should look like, to how we get benefits to our people—the commissary, health benefits, and so on. But there is I think a unifying element: The central purpose of this office is to ensure that we sustain the all-volunteer force.

**Q**

*You have been in your position for almost five years, coming into office in June of 2001. As you took the position, you couldn't have possibly imagined how the requirements were going to surge and change over the following five years. What are some of the biggest challenges you've dealt with?*



September 11, 2001, changed the way we did everything- getting different people to the central command region, stepping up the pace.

**A**

The biggest challenge is how we support the Global War on Terror. September 11, 2001, changed the way we did everything—getting different people to the central command region, stepping up the pace. And now the remaining challenge is how we manage a long war.

**Q**

*And your office, in particular—what is your main function in supporting that initiative?*

**A**

We are responsible for the policies controlling all military and civilian personnel issues. On the civilian side, we are trying to revamp our personnel policies to ensure civilians can play their full role in the Total Force.

On the military side, our responsibilities range from recommending, through the budget process, what the pay table should look like; what the policies should be concerning bonuses; whether we should seek new statutory authority in order to ensure the volunteer force succeeds.

Every year, we submit over a hundred new legislative proposals. In the military, unlike in the civil sector, we cannot undertake compensation actions without authority. According to the Constitution, Congress has the power to raise and support an Army and to provide for a Navy. So authorization comes from Congress, and we can do nothing unless Congress has deemed it appropriate.

Let's take relocation expenses. That's a fairly ordinary item. Suppose the law currently says you can relocate one car. If we want to say you can move two cars—since these days many families have more than one vehicle—we can't just decide that. If we want to change the rules, the Congress must legislate that direction.

**Q**

*Submitting legislative proposals is a tedious, long process that is done manually at the Service level. You've got a great system down there with the Unified Legislative and Budget process. I think, and so do my bosses in ASA (ALT) [Assistant Secretary of the Army (Acquisition, Logistics and Technology)], that the ULB or a similar application would be beneficial at the Service level for acquisition.*

**A**

Thank you. You can see why it is necessary: every year there are hundreds of proposed actions. We need to go through those and we need to be consistent, so if the Army wants one thing and the Navy doesn't, we have to broker a deal, so to speak. We have to get support for any money that we spend.

We actually start, as you know, in February for the following year's budget. So we try to decide all the big, expensive issues then; and in the summer we deal with the smaller issues. Now that's the theory; the reality is, it's an ongoing process. New ideas come up and new items are requested by a military service or civilian department all the time.

For example, the Army would like to have a housing recruiting incentive; if you agree to join, they would put money in an account that is earmarked for a home. It deals with the reality that most young people—forgive me—would rather go out and buy a car, but their parents would rather see them do something more long-term in nature. The Army would like to be able to offer this as a way to satisfy the needs from both the young person's view and the parents' view. Turns out, there are some legal and fiscal issues that have to be worked out to put away money like this for the future. We can't do it with the existing authority, we have to have more authority. So in the fiscal 2008 budget request, there will be new requests for a couple of different defense incentive policies. This is not a done deal; it is just exemplary of what we have to do to launch new initiatives.

A lot of the office's issues revolve around how we compensate our force. They also revolve around how we govern our force. We are the office that deals with conduct issues, not in the sense of the Uniform Code of Military Justice, however. We deal with promotion, with all the promotion lists and criteria for final review. We deal with how people can comport themselves; the way our uniform regulations work, when you can wear the uniform. Now, you may think that is a trivial issue; it isn't. You can't wear the uniform in a political setting because you are agitating for one or more candidates.

And for the military household, we administer a large range of benefit programs: the exchanges, the commissary, the health program, some elements of housing, support to the family, such as the help resource Military One-Source. That's a service you call with any problem, and it can hand you off to the right resource. It is a hotline in reserve. If you are the at-home spouse of a deployed soldier, and you can't find a plumber, you can call Military OneSource, and they'll find you one. Of course, that is a mundane example, but you could be calling and saying, "My son has been injured. What do I do? Whom do I need to speak with? Where do I make contact?" The idea was to give military families a fallback beyond the family support systems available on a post, one that is available 24/7 and staffed by professionals who are supplied by a commercial firm, under a contract. It is another option to support families. So that is just part of the full range of programs involved with supporting the military family.

**Q**

*My next question is about the Human Capital Strategic Plan. It is an initiative I have a personal interest in hav-*

# Dr. David S. C. Chu

## Under Secretary of Defense for Personnel and Readiness

**D**r. David S. C. Chu was sworn in as the under secretary of defense for personnel and readiness on June 1, 2001. A presidential appointee confirmed by the Senate, he is the secretary of defense's senior policy advisor on recruitment, career development, pay, and benefits for 1.4 million active duty military personnel, 1.3 million Guard and Reserve personnel, and 680,000 DoD civilians; he is also responsible for overseeing the state of military readiness. Chu also oversees the $15 billion Defense Health Program; Defense Commissaries and Exchanges with $14.5 billion in annual sales; the Defense Education Activity which supports over 100,000 students; and the Defense Equal Opportunity Management Institute, the nation's largest equal opportunity training program.

Chu earlier served in government as the director and then assistant secretary of defense (program analysis and evaluation) from May 1981 to January 1993. In that capacity, he advised the secretary of defense on the future size and structure of the armed forces, their equipment, and their preparation for crisis or conflict. From 1978 to 1981, he served as the assistant director for national security and international affairs, Congressional Budget Office, providing advice to the Congress on the full range of national security and international economic issues.

Chu began his service to the nation in 1968 when he was commissioned in the Army and became an instructor at the U.S. Army Logistics Management Center, Fort Lee, Va. He later served a tour of duty in the Republic of Vietnam, working in the Office of the Comptroller, Headquarters, 1st Logistical Command. He obtained the rank of captain and completed his service with the Army in 1970.

Prior to rejoining the Department of Defense, Chu served in several senior executive positions with RAND Corporation, including director of the Arroyo Center, the Army's federally funded research and development center for studies and analysis; and director of RAND's Washington office.

Chu received a bachelor's degree, magna cum laude, in economics and mathematics in 1964 and a doctorate in economics, in 1972, both from Yale University. He is a fellow of the National Academy of Public Administration and a recipient of its National Public Service Award. He holds the Department of Defense Medal for Distinguished Public Service with silver palm.

*ing recently finished writing an article on this topic [*"Developing a Capable, Agile Civilian Workforce," page 28*]. All over DAU, we are hearing about the work you are doing with human capital strategic management. Debate and discussion about recruiting, assigning, training, and retaining qualified personnel often focus on revamping the entire personnel system. How much of a departure do you feel is necessary from our traditional civil service program to meet the emerging needs of our present situation?*

**A**

The centerpiece of the Human Capital Strategic Plan is to build on what is already a very able system to make the civil service of today a stronger option. That is what our enterprise is going for; we need to integrate active duty versus reserve personnel and civil servants, into a total force—one force.

Too often in the military, managers are reluctant to consider or explore a civil service solution, even though that might be a better choice than a military unit or staff to perform the needed function. The whole explanation is more complex, but an important part of it is lack of agility in the civil service.

That was the reason that Don Rumsfeld, the then secretary of defense, endorsed the notion that there was a need for a national security personnel system versus the several systems unique to various departments.

We are now in the process of deploying NSPS. By the end of this month [*February*], we'll have over 70,000 civil servants (and that is about 10 percent of our "classic" civil service) under NSPS, and by later in the spring, we should have 100,000.

There are a lot of elements that are important about the system. Let me name two in particular. First, we are moving towards a more modern view of compensation. The old view was based on the classification system, and in many ways, that computation told you how much you'd get paid. There were certain criteria for the position and they told you the level of pay. People might say the pay was competitive, but in our view, that system was backward. We ought to give a raise based on the supervisor's evaluation of performance, and give the supervisor enough latitude. So we adopted many of the lessons learned from the experiments that your community [*DAU*] turned out, such as studies on alternative work compensation.

These eliminate the pay grade structure and create a small number of broad pay bands. The applicants in the civil service system compete for a pay band. Once they've competed, you—the supervisor—decide where in that pay band you want to put them. You can then

move that person within the pay band at your discretion. If you add duties, you can increase compensation; if you remove duties, you can subtract compensation. That is a very different world from the one we've been used to.

**Q**

*AcqDemo—The Civilian Acquisition Workforce Personnel Demonstration Project—is the contribution-based pay-banding system that was used previously within the acquisition workforce, and is currently being replaced by NSPS. Are there similarities between AcqDemo and NSPS?*

**A**

Yes, AcqDemo was one of the many sources of ideas that we used. We took from a variety of sources—what works, what is effective, what can we use to manage people. AcqDemo was one source of what we call our best practices.

**Q**

*I am under the impression, however, that NSPS is more flexible than the AcqDemo.*

**A**

Yes, it has additional authority, additional latitudes.

The other important change I would emphasize is that changes in compensation should be the product of performance, not of longevity. Employees aren't rewarded just because of how long they've been around but based on what they have contributed in support of the mission. That's a very different philosophy from the one that governed the civil service for a long, long time.
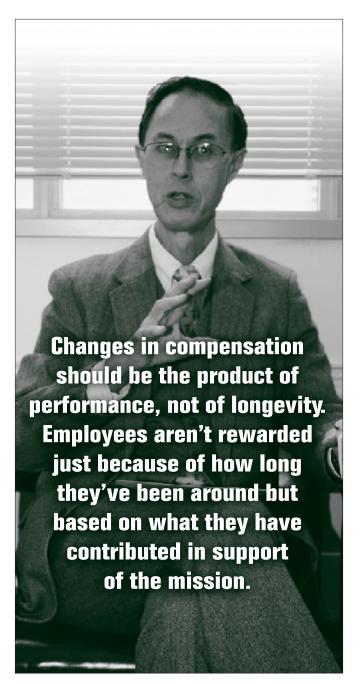
These are big changes, and they are going to cause some disquiet in various quarters. Our experience with the change process so far is that people are about as happy, on average, with the new process as they were with the old one. It's going to take several years before they realize the full potential of NSPS.

**Q**

*One of the big tasks of your office is inventory management, in which you must examine the current workforce and environment to determine the right mix of talent for each functional area. How does your office ensure that the correct "inventory" of jobs is being allocated, given the constantly changing nature of technology and the workforce? What is being done to look ahead to capture qualified people in jobs for needs that are only just emerging?*

**A**

It's a challenging process and one that is calling for considerable rethinking. During the Cold War years, we had a well-defined idea about what our problems were and what the workforce would look like, and we did what we could within this forecast to get the right mix of skills.

> **Changes in compensation should be the product of performance, not of longevity. Employees aren't rewarded just because of how long they've been around but based on what they have contributed in support of the mission.**

We're not in that kind of world now. We are in a world with rapidly changing problems and with very different countries involved. If there is any constant in this world, it is that you can't easily predict what you will need next. If you look back six years to August of 2001, no one could have predicted that Pashtun or Dari would be languages we would need to cover. But on September 12, 2001, we suddenly found we needed those language capabilities—something we couldn't have known two days earlier.

So instead of trying to forecast too specifically, the real challenge is how to engineer a system that is responsive and that can turn on a dime: Okay, I now need this or that capability; where am I going to find the resources I need?

## A Six-pack of Tips for Defense AT&L Authors

**1** Look at back issues of the magazine. If we printed an article on a particular topic a couple of issues ago, we're unlikely to print another for a while—unless it offers brand new information or a different point of view.

**2** We look on articles much more favorably if they follow our author guidelines on format, length, and presentation. You'll find them at <www.dau.mil/pubs/dam/DAT&L%20author%20guidelines.pdf>.

**3** Number the pages in your manuscript and put your name on every page. It makes our life so much easier if we happen to drop a stack of papers and your article's among them.

**4** Do avoid acronyms as far as possible, but if you must use them, define them—every single one, however obvious you think it is. We get testy if we have to keep going to acronymfinder.com, especially when we discover 10 equally applicable possibilities for one acronym.

**5** Fax the *Certification as a Work of the U.S. Government* form when you e-mail your article because we can't review your manuscript until we have the release. Download it at <www.dau.mil/pubs/dam/DAT&L%20certification.pdf>. Please don't make us chase you down for it. And please fill it out completely, even if you've written for us before.

**6** We'll acknowledge receipt of your submission within three or four days and e-mail you a publication decision in four to five weeks. No need to remind us. We really will. Scout's honor.

**Q**

*So there's a need to develop a stronger capacity to understand and work with the cultures and peoples of other nations, in particular to increase our linguistic facility. One reaction to this has been your department's participation in the National Language Initiative, a long-term strategy to help develop this expertise. Can you comment on what is being done with the program?*

**A**

The United States is a very diverse society. Pick whatever language you like, there are people living in this country with some knowledge of it. Now, they may not yet be good in our language—and they may not yet be citizens. So we said, "Let's consider starting a program in which we appoint what we call "heritage speakers." Let's go out to the heritage community and ask who would like to join. The Army has proved that you can recruit from the heritage community; their recruits are known by their MOS [*Military Occupational Specialty*] "09 Limas"—essentially interpreters. It's been very successful. Commanders love them because they are American soldiers. Above all else, they have all the soldier skills, but in addition they have unique linguistic and cultural ability. So they can give the inside edge, telling the commander what is going down, but to the insurgents, they look just like any other American soldier.

It is a very responsive program. We have people who know languages that we would never have planned for. So our real strength is the depth of American society and its diverse cultures. The challenge is planning on how we can draw quickly on that talent.
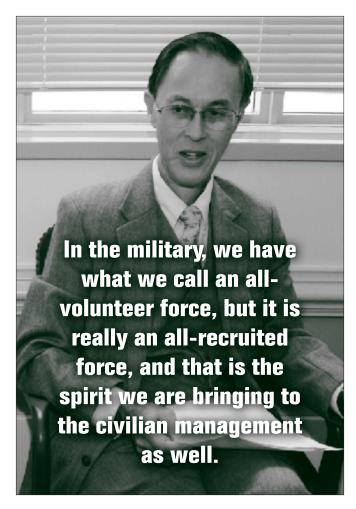
One of the objectives is a more responsive hiring process. How can we move faster? Let's take the provincial reconstruction teams. A lot of these involve civil skills; they don't really exist in uniform. In the past, we looked to the uniformed services to provide them because the military can move quickly. The challenge is to prove that the civil service can move just as quickly. With NSPS, we can move a lot faster.

**Q**

*There has been much discussion about what some people are calling a human capital crisis: the impending wave of retirements that will, in the view of some, leave agencies bereft of institutional knowledge and with few replacements lined up to take up the reins. Has the problem been overstated? What is being done now to address the issue?*

**A**

I don't think it's a "crisis," but it *is* a challenge. We have a highly experienced workforce in place right now, and that is not going to be quite so true as people begin to retire. However, not every experienced worker is going to be retiring. Furthermore, most people don't retire the first

> **In the military, we have what we call an all-volunteer force, but it is really an all-recruited force, and that is the spirit we are bringing to the civilian management as well.**

year they are eligible. The issue is how to sustain that great force. Over time, as today's civil servants leave, we must recruit a new generation.

In the military, we have what we call an all-volunteer force, but it is really an all-recruited force, and that is the spirit we are bringing to the civilian management as well.

We can't expect people to find us. We have to tell them who we are and what we do. We are experimenting with different advertising, marketing, and outreach programs. They're still in the early stages. But I think we will be gearing up the recruiting over the next year to start hiring replacements. We want to bring them in under the NSPS because we find that the younger generation wants a performance-oriented system; they want to be rewarded for what they have done—and they should be.

**Q**

*You've talked about the new recruits and touched on the group that will be retiring, but what about the people in between, the middle group?*

**A**

That is one area where we don't have enough people. And that is one of the reasons why we need to consider

rehiring people—bringing them back, perhaps on a part-time basis, from the retirement pool—to mentor, to instruct, to fill the gaps.

**Q**

*Are there any initiatives for youth training?*

**A**

You're raising a great issue, but it's one we are not yet prepared to act on. Current law restricts how we invest in the skills of our civilians. We tried to remove these restrictions when we proposed NSPS. Congress declined to act. So we'll try again. We hope to arm ourselves with a better view about what the strategy should be.

**Q**

*Would you talk a little about the difference between the best practices review and NSPS?*

**A**

It was a great review. I think it was one of the Department's finest hours, considering what we had already done, bringing it all together and in a cohesive way. We have remarkable cohesion in the Department.

So we built on the acquisition foundation. And what is interesting, as you are probably aware, is that other agencies want to use the NSPS product—in fact, the Department of Homeland Security has used it.

**Q**

*One last question: The people on the front lines—that is, the human resources professionals working on a daily basis with the recruiting and hiring of the workforce—often have the most immediate perspective on the workplace. What is being done to capitalize on this immediate experience?*

**A**

The HR people are learning new things as well because NSPS is a matter of performance management, which requires training. We are counting on them to go out and help others succeed. As you know from being in Acq-Demo, it is very different to tell you to write performance objectives when you are actually going to base someone's pay on them. The HR professionals' experience and their help in working with our people is tremendous, and they do play a central role.

We do polls, and I am pleased that while the levels vary with different age groups and jobs, awareness and acceptance of NSPS are improving. We now know where we need to work to fill the gaps.

It has been a great pleasure talking to you.

# Making a Difference for Asset Visibility, Management, and Accountability

*James I. Finley*

Item Unique Identification, or IUID, is a capability that requires a globally unique identifier for items, along with the ability to consistently and accurately distinguish any item from another by using high-capacity machine-readable 2-D marking. The unique identifier distinguishes not only dissimilar items, but also identifies specific items that have the same manufacturer, part number, and National Stock Number. The NSN is valuable and critical for consumable items; however, for Department of Defense serially managed assets, IUID provides permanent, lifetime item uniqueness.
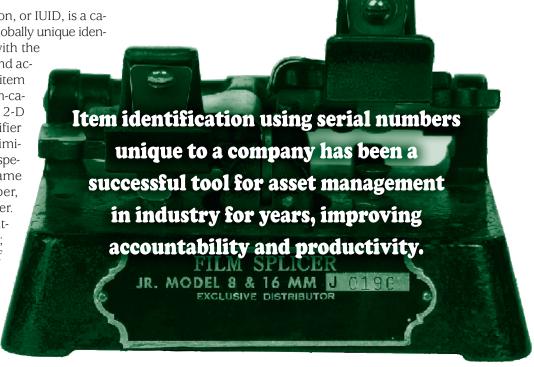
> **Item identification using serial numbers unique to a company has been a successful tool for asset management in industry for years, improving accountability and productivity.**

Item identification using serial numbers unique to a company has been a successful tool for asset management in industry for years, improving accountability and productivity. One example of a successful sector-wide commercial item identification system is the Vehicle Identification Number, introduced in 1980 to uniquely identify vehicles. Today, every single car sold in the United States has a VIN number that allows it to be accurately tracked and identified.

For years, such companies as Dell and Hewlett-Packard have incorporated item identification systems into their products with great success, improving customer relations and reducing costs associated with life cycle asset management. Wal-Mart recently extended the concept of asset management, integrating Radio Frequency Identification into supplier packaging requirements to enhance efficiency in stocking and inventory control.

The Department of Defense is taking successful item identification tactics a step further with IUID by using 2-D marking and automatic data capture to establish permanent, globally unique identification to identify, track, and manage individual DoD assets throughout their life cycle.

## IUID Implementation at the DoD

IUID was made mandatory for all new DoD acquisitions beginning Jan. 1, 2004. On Dec. 23, 2004, the requirement was expanded to require all acquisition and sustainment programs to develop an evolutionary approach to IUID for all existing items in inventory, property in the possession of contractors, or items already on contract.

The implementation progress has been substantial; there are currently more than 1 million items registered in the DoD's IUID Registry, and the rate of entries continues to increase. I believe that IUID provides a positive return on investment and will significantly improve the way we do business in the Department. As we are better able to track our equipment throughout its life cycle, we will not only better manage existing equipment, but also better plan for the future.

*Finley is deputy under secretary of defense for acquisition and technology.*

> "Though there is much work yet to be done, it is clear that the IUID effort is the first step in improving accountability throughout the life cycle of all DoD assets."
>
> —Dr. James I. Finley

## IUID is Essential to the Department

IUID is an essential effort for the DoD. The consistent and accurate identification of items will facilitate item tracking throughout each item's life in DoD business systems. The result will be reliable and accurate data for program management and accountability purposes that will also be vital to engineering, acquisition, financial, property, plant, and equipment accountability, maintenance, and logistics processes. The goal is to accomplish this while engaging actively with the international standards and commercial item markings communities to ensure they

can support IUID marking and data capture requirements. IUID will facilitate integration of item data across DoD, federal, and industry asset management; improve item management and accountability; improve asset visibility and life cycle management; and enable clean audit opinions on item portions of DoD financial statements. An example of how IUID is becoming an integral part of DoD business processes can be found in DoD Instruction 4151.19, "Serialized Item Management (SIM) for Materiel Maintenance," signed by Ken Krieg, USD(AT&L) on Dec. 26, 2006. This instruction states that all programs shall facilitate the effective management of populations of select items (parts, components, and end items) throughout their life cycle using data associated to an item by its Unique Item Identifier (UII). Data about the maintenance, logistics, and usage of each specific item will then be collected and analyzed.

Another ongoing effort under the unique identification initiative is the Real Property Unique Identifier, or RPUID, which will uniquely identify all parcels of land and all real property facilities in which DoD has a legal interest. RPUID serves as the "key" to link any real property asset with related information from different sources throughout DoD. For example, by using an RPUID, data from a financial system can easily be linked to asset information in the core asset management system, making it possible to improve financial accountability. The RPUID will also enable the linkage of real property to personnel, personal property, and environmental systems. This will improve the accuracy and reliability of information while reducing costs because data will be entered once and shared throughout the DoD. Because of commonality under the UID initiative, data collected using RPUID, IUID, and other UID implementations will be interoperable.

## Complying with IUID Requirements

To the maximum extent practical, the Department embraces the current methods used among suppliers, including commercial practices; doing so is in the Department's best interest and the best interest of coalition partners and industry. The UID policy development effort has involved the international community, international standards bodies, and industry. The Department continues to collaborate with these stakeholders on implementation issues. The Department is internally guided by the need for the integration of efforts across the acquisition, financial, and logistics domains. My staff has directly participated in 20 integration projects executed by the Services to develop IUID capabilities at multiple levels within the Department and is actively pursuing broader international acceptance through NATO, the International Standards Organization, and other international bodies.

The Naval Air Headquarters at Patuxent River, Md., has teamed with Army Aviation at Redstone Arsenal, Ala.,

## IUID Policy Update, February 2007

*O*n Feb. 6, 2007, USD(AT&L) Ken Krieg issued a memorandum addressing updated IUID policy and guidance.

"We have achieved tremendous progress; for example, IUID requirements are now included in the DoD financial improvement and audit readiness plans, but we need to sustain momentum toward achieving paperless management of property in the possession of contractors in FY 2007 and furthering depot planning and implementation," said Krieg in the memorandum.

"Secretaries of the Military Departments and Directors of the Defense Agencies and Field Activities should lead IUID implementation for both newly acquired and legacy items currently in inventory or operational use," he directed. "Component officials leading engineering, logistics, finance, acquisition, operations, information systems, and procurement must be accountable for success. Commanders of Systems and Materiel Commands and Centers should aggressively require marking of equipment and ensure contract compliance to enable use of the unique item identifier."

The Additional Item Unique Identification Guidance states that: "For uniquely identifying legacy items, a phased approach should be considered in accordance with USD(AT&L) memorandum dated December 23, 2004, which is accessible at
< www.acq.osd.mil/dpap/UID/policy.htm >.
The prioritized list of legacy assets for addition into the IUID registry is also available on the UID Web site at < www.acq.osd.mil/dpap/UID/ >.
Phase I legacy assets must be entered into the IUID registry no later than September 30, 2007; Phase II no later than September 30, 2008; and Phase III no later than September 30, 2009."

*The link to the complete text of the under secretary's memorandum and guidance can be found at* < www.acq.osd.mil/dpap/UID/ attachments/2007-0527-ATLcomplete.pdf >.

and Sikorsky Aircraft Corporation to pilot the adoption of the international standard ISO 10303, "Standard for the Exchange of Product Model Data," Application Protocol 239, commonly referred to as Product Life Cycle Support (PLCS).

Today's digital systems at Sikorsky and NAVAIR are incompatible. Basic SH-60 aircraft delivery data are pro-

vided to the Navy on paper. Five full-time staff manually transcribe and load the data into the Navy's NALCOMIS - OOMA maintenance management system over a two-week period. The ISO 10303, AP 239 PLCS pilot effort demonstrated digital data transfer in a matter of a few minutes, requiring little or no human intervention. The successful pilot compelled us to extend the tool to a more robust production effort that can readily proliferate to other DoD and contractor users.
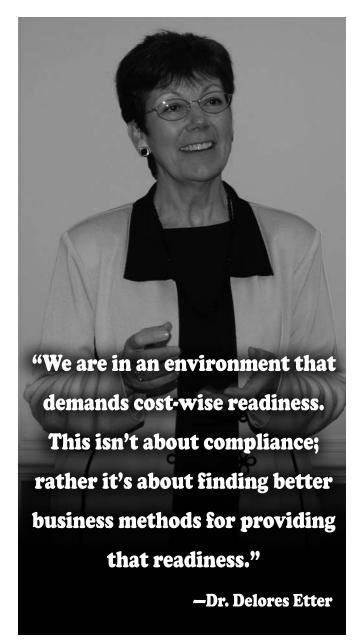
A data exchange standard based on PLCS was developed and used to transfer delivery, maintenance, and configuration data among maintenance management systems. As the Department embraces industry-provided sustainment support, effective sharing of maintenance actions becomes critical. The PLCS effort provides a common data standard by which various identification systems can communicate. The marking and registration of 97 million items within DoD is a daunting task, but with the thousands of business, financial, maintenance, and supply systems in the Department, there is a significant opportunity to eliminate repetitive, duplicative efforts. The results of the PLCS data standardization pilot will be used to demonstrate where the ISO 10303 standard is beneficial and should be considered for broad, if not Department-wide, adoption. Initial results from pilot work last year are compelling, and a more production-orientated effort is under way in FY07.

All acquisitions executed through the Department now require IUID, including all international and foreign military sales. A pilot project under way with the Navy International Programs Office is using IUID to track sensitive munitions sold to international partners, from the factory to destinations, and to improve end-use monitoring of those items during their service life. The Department now expends a great deal of human resources conducting inventories associated with overseas end-use monitoring of these items. IUID offers the potential to dramatically reduce the labor involved and will also increase our confidence in the effectiveness and accuracy of those inventories.

Dr. Delores Etter, assistant secretary of the Navy for research, development and acquisition, sees great value in the use of IUID. "We are in an environment that demands cost-wise readiness. This isn't about compliance; rather it's about finding better business methods for providing that readiness. IUID can do that by improving the ability to track our assets."

### Benefits of IUID within Depot Operations
The Marine Corps Maintenance Depot in Albany, Ga., has improved operations within its product lines as it converts its systems to use IUID and the 2-D data matrix. Ongoing projects within the maintenance depots are establishing the ability to exploit IUID to mark, identify, record,

> **"We are in an environment that demands cost-wise readiness. This isn't about compliance; rather it's about finding better business methods for providing that readiness."**
>
> **—Dr. Delores Etter**

Marine Corps the ability to refocus personnel to other critical duties. The impact to the warfighter is very positive—changing processes to exploit automatic data-capture technology instead of manual data entry. The benefits to the sustainment community are improved usage predictions, accurate part history, and enhanced reliability analysis. Use of IUID and AIDC will ultimately result in improved manpower efficiency related to inventory control, greater data integrity, and increased readiness of weapon systems.

Maj. Gen. Willie J. Williams, commanding general, Marine Corps Logistics Command, said, in his opening remarks at the January 2007 IUID Depot Maintenance Customer Day in Albany, " IUID goes beyond part marking. IUID is critical in managing the DoD enterprise end-to-end logistics chain management in that it provides logistics data that become logistics intelligence."

### Service Progress in Registering Legacy Items
Over 240,000 legacy items had been registered through the first quarter of FY07. Under Etter's leadership, the Department of the Navy—with over 130,000 UIIs registered—has taken the lead to identify opportunities to implement IUID. "We have many unique situations and challenges with implementing IUID. The pilot programs under way at our depots and warfare centers are critical. They will help us better understand the magnitude of the effort required and find efficient ways of completing the task," she says.

During the last quarter of 2006, the number of accepted Navy UID program implementation plans increased by more than 150 percent. Etter committed the Navy to completing all its 251 UID program implementation plans by the end of the second quarter FY07. The Air Force leads in percentage of expected plans that have been accepted, and the Army continues to have the largest number of total IUID (legacy-plus-new) records. The overall DoD UID program plan effort is 45 percent complete, with 363 UID implementation plans as of November 2006.

### Industry Response
Industry suppliers have responded favorably to DoD's IUID requests. There continue to be presentations at forums by National Defense Industry Association and Aerospace Industries Association (AIA) member companies like Lockheed Martin, Pratt & Whitney, Honeywell, Rolls-Royce, Sikorsky, and Boeing, explaining how they have gained value from IUID. These companies present information describing how automatic identification technology reduces costs through improved data quality and enhanced quality control during product planning, development, life cycle, and inventory control. The AIA has developed a common supplier flow-down requirement to further expand IUID use as the single identification across industry and DoD for supply-chain management.

and track items inducted into the depots for maintenance. The depot is implementing IUID using commercial off-the-shelf IUID solutions to accelerate internal capabilities, while benefiting from the insight of Department personnel. Initiatives began with a marking program for one of the cranes used in the field. In addition to improved asset visibility, adapting the data plates to include the data matrix had unanticipated benefits: reduction of manpower and elimination of hazardous waste. For years, a labor-intensive photo chemical process containing benzene had been used to mark the identification plates. Using a $CO_2$ laser to add the IUID information and the data matrix to the plate reduces the job from hours to minutes and eliminates the use of a hazardous material.

Ultimately, the inherent efficiencies of IUID and Automatic Identification and Data Capture (AIDC) will give the

Many defense industry suppliers identify IUID as the single best practice for item management across the corporate spectrum for both commercial and government business. This forward thinking is particularly true in the aerospace industry where IUID-compliant marking is an accepted equivalent to existing Air Transport Association marking requirements.

There are many examples of primarily commercial suppliers who have successfully delivered IUID-compliant items. Hewlett-Packard and Dell are excellent examples in the information technology sector. Both organizations are delivering hardware with permanent asset labels that comply with IUID marking requirements. The labels are easily produced at a low cost and can be read by portable imaging devices supplied to members of IT staff. The imagers are tethered to computers and able to download the contents of the mark. The IUID-compliant labels benefit both the government and the manufacturer in asset management. In creating the permanent asset label, HP was able to embrace the DoD approach and comply with international standards by using its own serialization to create the unique item identifier. This approach is in stark contrast to fragmented customer requirements to apply company-unique tags that offer little or no direct value to HP. The DoD approach allows HP to capitalize on existing internal processes and provides greater value from post-sale customer data.

IUID capabilities in commercial organizations improve operations and speed processes, while increasing accuracy. The global speed of competition has demanded tools, like IUID, that accelerate commercial capabilities. IUID can enhance competitive readiness, reduce costs, and increase reliability. It is the goal of the Department to bring these same benefits to the warfighter.

The impact of the IUID initiative has been positive among the small-business community as well, in part, because of the array of low-cost products and service providers. Training materials have been readily available, and the Procurement Technical Assistance Centers have added IUID training to their outreach efforts to small businesses. This support and the straightforward IUID requirements have resulted in small business accounting for more than half of the total businesses that have delivered compliant items to the IUID Registry.

IUID has also increased business opportunities for many small businesses by generating a demand for equipment and services to support the marking and reading of the IUID mark along with the capture and exchange of data among both internal and external business applications.

### Continuing Efforts

The need for unique identification does not stop with IUID. A DoD directive that is in the review process at the

> **The need for unique identification does not stop with IUID. A DoD directive that is in the review process at the time of writing would ensure interoperability among the unique identification initiatives in the Department: personal property, real property, sites, organizations, and people.**

time of writing would ensure interoperability among the unique identification initiatives in the Department: personal property, real property, sites, organizations, and people. Each of these initiatives would be further delineated in a set of companion DoD instructions or other issuances. The Navy also established a cross-functional executive leadership group to ensure that the implementation of the directive and instructions provides a cohesive application of the basic principles of unique identification. This implementation standardization is critical to the improvements in business processes sought by the Navy.

Though there is much work yet to be done, it is clear that the IUID effort is the first step in improving accountability throughout the life cycle of all DoD assets. By integrating commercial best practices for asset management, the Department can capitalize on years of industry asset identification knowledge, technology, and experience to maximize the potential for savings through efficiency and accountability.

For more information on IUID, visit < www.acq.osd. mil/dpap/uid >.

*The July-August issue of* Defense AT&L *will feature IUID success stories.*

# First Things First

## The Importance of Risk Identification

*Douglas J. Bragdon*

You are the government program manager for a high-volume production program. Your contractor team is beginning to build components based on the hardware design that was completed in the developmental phase of your program. Schedule must be maintained. You are confident, however, because even with a tight budget, you insisted all along on a robust risk management program.

Late on a Friday afternoon, less than a week before your first article is scheduled for testing, your technical director and your risk manager burst into your office.

"We can't get the parts to fit," the TD says. "We've tried everything. We have no choice but to reopen the design."
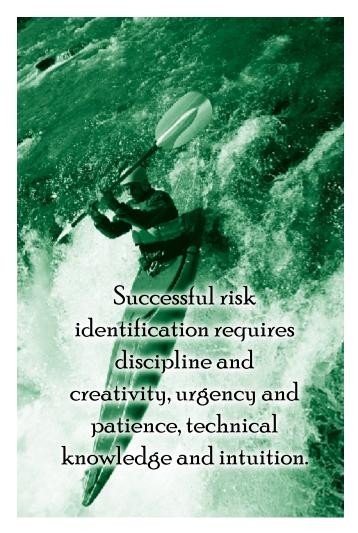
"Why didn't we see this coming?" you ask.

"Well I thought we took care of this through our risk program," she says. "A simulation would certainly have identified this problem. But Bob here says this risk fell off the raft six months ago."

"We actually proposed this risk three times," says the RM. "When we started out with our Delphi solicitation two years ago, over half of our industry experts mentioned it. But the contractor PM said that industry just didn't understand their design and that it was not a risk. So it never got onto the contractor risk register.

"Several months later it came up at the preliminary design review. The government team insisted that the contractor conduct a formal risk analysis. The following month, the contractor briefed it as a second-tier risk being handled at the cost account level. There were too many other important risks. After a couple months, it disappeared. And no one noticed.

"Then six months ago, the risk team scrubbed the program against the manufacturing risk model, which encourages a simulation early in the program. We discussed it and people felt that if we really needed one, we would have done one earlier."

*Successful risk identification requires discipline and creativity, urgency and patience, technical knowledge and intuition.*
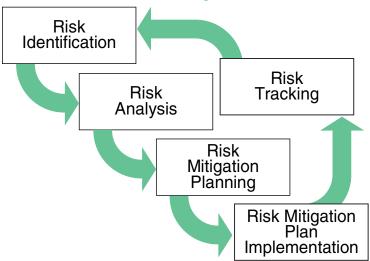
This is the day you hoped would never come—a sizeable schedule slip, cost growth, and an angry customer. You swear never again to waste money on risk management.

### It Happens All the Time

The episode described above is hypothetical, but similar incidents happen all too frequently in developmental contracting. With the increased emphasis on risk management over the last 10 years or so, nearly all large developments mandate a risk program. Contractors develop finely tuned risk statements to assess their risks, guided

**Bragdon** *spent over 20 years in engineering and project management within DoD. He now works as a senior systems engineer for McClendon Corporation supporting a compartmented DoD program*

## FIGURE 1. DoD Risk Management Process

Risk Identification → Risk Analysis → Risk Mitigation Planning → Risk Mitigation Plan Implementation → Risk Tracking → (back to Risk Identification)

by commercial risk management software packages. Each month at the program management review, they proudly display their risk matrix to justify their program-level risks. If they have enough initiative, they will attempt a quantified assessment to estimate the current cost of these risks, and they may apply that amount of resources to mitigation plans. Yet major risks go unaddressed. In the end, risk management has become something it should never be—just another engineering checklist—and has drifted far from the dynamic, creative, and predictive approach necessary for success.

Worst of all, too many times, the risk that rises up and threatens serious damage to a program is one—such as the flawed design mentioned above—that could have been identified and mitigated at minimal expense. In retrospect, you may find the killer risk buried obscurely among second tier risks, below the line for funding mitigation plans, stymied by "phantom" top-level risks that weren't.

The growth of risk management in the Department of Defense over the last 10 years constitutes a critical improvement to acquisition. Schedule, budget, even entire programs have been saved through effective risk management processes. But there are still too many programs that needlessly suffer from predictable and manageable risks.

In order for the DoD risk management process to increase in value to programs, it needs to move out of its adolescence and become fully matured. The key to this maturity is improvement in the most important, yet most elusive part, of the process: *risk identification.*

### Risk Identification—What Goes Wrong?

My thesis—that risk identification is the most important part of the process—may seem unconventional. But consider the example described above. The ultimate prob-

lem was not mitigation or resources, it was an inability of project leaders to recognize an impending risk despite numerous opportunities. A simulation would have spotted the problem, but no one realized the importance of doing that simulation.

The failure was in the risk identification portion of the process. Risk identification is the activity that determines which risks are relevant to the program. As Figure 1 shows, risk identification is iterative; it must be properly executed on a continuing basis in order for the overall risk management effort to add any value. Nevertheless, there is no surefire formula for success. Successful risk identification requires discipline and creativity, urgency and patience, technical knowledge and intuition.

In a typical high-risk, high-payoff development scenario, the risk effort normally gets off to a strong start. The technical staff are energized by the impending challenge, and the first meetings produce creative brainstorming sessions during which (often for the first time) the technical details of the effort at hand begin to be fleshed out. There may be daunting challenges, but there is also confidence that the technical expertise can meet them. And, of course, there is that risk mitigation resource pool for the really hard stuff.

### Wait Up—Not so Fast

Once the first pass is complete and presented, the government PM is most likely impressed with the work and commends the team. At this point, several bad things could happen. First, the risk team might begin to think that the risk identification phase is done. We've identified the risks, they think. We've sketched out technical mitigation approaches that correspond to the gravity of each risk—now all we need to do is execute the plans.

Nothing could be more wrong. For a new development effort, the technical risks will continue to evolve well into the design phase. And it often happens that the risk team is made up of a number of strong senior- and mid-level engineers, each of whom has a history of building successful systems. Their strength may well be to execute within a clearly defined scope—to build to the spec. They may not be comfortable remaining in the frame of mind that risk management requires—one in which the rules may change dramatically at any time. Finally, it is difficult for anyone to continue to go over the same ground with a fresh and energized approach, looking for new risks. This is like asking a beat cop to take over a cold case investigation. The risk meetings may quickly become stale and perfunctory.

The situation can be made worse if the PM misuses the output of the risk identification or predetermines what the program risks should be. Consider the effect on the

team if one of the topmost identified risks is scuttled by the PM. Even if the PM's reasons are solid and he or she communicates them clearly to the team, the amount of energy put into the risk identification process will be drained. Worse yet, the risk team may begin to defer to the PM's intuitive sense of risk to the program—and when you get to that point, there is little value in continuing the process. A higher priority, informal, and unstructured process has taken precedence.

Another major obstacle to an accurate identification of risks is that meaningless phantom risks arise on the roster in front of the team. The risk roster too frequently becomes the medium for all sorts of finger pointing and maneuvering. One case is the common temptation for components of the technical program to identify dependencies on other components as their own risks. For example, when software and hardware are being developed in parallel, there's a risk if there are no hardware platforms for software engineers to use for development. But it is a program risk, not a software risk. It is of no benefit to anyone for the software team to sit in meetings discussing a lack of hardware. This risk should be accepted by the risk owners (hardware development and program management) and managed at the program level. Software can then move to assess the specific risks to software development—normally a fertile ground for risks.

In its effort to produce results for both the government customer and its shareholders, the prime contractor normally needs to evaluate risks that may stand in the way of success in reaching the goals (and profits) associated with the contract—in other words, contract risk. It's a necessary business practice, but it should not be conducted as part of a government program using government funds and resources. Contract risks should be identified and managed in a separate business process outside the terms of the contract.

## Get the Most from Your Risk Program
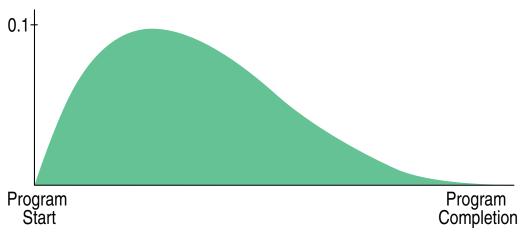
In order to get the value you need from your risk management effort and the most for the resources you are dedicating to this activity, you—the PM— must take an active role. Some PMs participate actively as a member or leader of the risk identification effort. This is not necessary, but it is acceptable as long as the PM doesn't bring in ancillary concerns from other aspects of the program, thereby over-

whelming the risk identification process. The brainstorming component (which nearly always includes deadends and tangents) must play out in a nonjudgmental, unpressurized environment.

After the customer, the PM stands to gain the most from proper risk management and must recognize the essential nature of the effort. The PM needs to be a strong, nonjudgmental listener with an open mind toward candidate risks. He or she can enable risk management by fostering a strong initial risk identification effort, by embracing the results, by measuring success, and by maintaining the validity and viability of the effort through its most useful and necessary period.

Your project's initial risk identification, if done well, will identify many of the risks that could affect your project throughout its life. For a development effort, however, it cannot be expected to identify them all. The initial risk identification must be followed up by a continuing effort to identify newly occurring risks. The beta distribution (Figure 2) illustrates that the most important time for planning and funding risk management initiatives is the first half of the project, through the design activities.

For the initial risk identification, insist on multiple strategies. The choices are well known—brainstorming, Delphi technique, models, expert opinion, and so on. Make sure the risk team uses more than one approach and makes a concerted effort to bring in outside opinions. Risk models, such as the software risk taxonomy published by Higuera and Haimes through the Software Engineering Institute at Carnegie-Mellon University, are simple tools that document the areas where similar programs from the past have encountered risk. A simple, structured approach using a model may sometimes illuminate risks that are otherwise "hidden in plain sight." For example, applying the software development model may force the team to address the question of testing for all software units. The initial risk identification should address the en-

FIGURE 2. **Distribution of Risk Expenses**



0.1

Program Start

Program Completion

> ### Far too often, risk identification results are received with polite thanks—then left in a file.

tire scope of the project, not just the beginning. This is because the risks from the later periods may need to be managed from the outset.

Once the initial risk identification is complete, and the management strategies are in place, risk identification must continue, and PMs must take pains to sustain the effort. Painful as it may be, keep several of your most creative engineers on the effort. At least once in each phase of the program, insist that the team exercise an alternative risk identification approach. A periodic meeting of an advisory board made up of industry experts can provide a valuable balanced assessment of program risk, and the benefits to the program will far exceed the cost.

### Embrace Risk Results

Risk management can't succeed unless it is properly resourced, prioritized, and empowered. This may seem to be an obvious statement, but far too often, risk identification results are received with polite thanks—then left in a file. There are as many reasons for this sort of behavior from a PM as there are causes of stress—budget, schedule, customer satisfaction, team dynamics. But this cannot be allowed to happen. A confident program manager will realize that there are many unknown unknowns on a development project and should resist the impulse to ignore inconvenient possibilities. Not all mitigation strategies can be funded, and in the end, there should be a brass-tacks reckoning regarding whether funding the risk mitigation is worth the investment. But the time for that is when all the information is in.

At the same time, the PM can strengthen his or her program with a constructively critical approach to risk identification. Have the risk team explain how they have assessed the entire scope of the effort, not just the first challenges out of the gate. Ask about those risks that you intuitively sense that don't show up. Make sure that the contractor is keeping program risk separate from contract risk (and is paying its own way for contract risk as-

sessments and mitigation strategies).

### Measure Success

If quantifying risk is an inexact science, then measuring the benefits accrued through implementation of risk management strategies is even more difficult. It must be done creatively and carefully. Optimally, none of the risks identified for your program will ever occur. Still, even if the risks never occur, the costs of a well-planned mitigation strategy are worthwhile. More telling is the documentation of program issues that never appeared on the risk roster. If a program suffers a series of technical setbacks that were not being mitigated, there may be some critical flaws in the risk identification process. A mid-program lessons-learned session may bring to light why those risks were missed—and how they might have been caught.

For risks that are being managed, the PM can build measurement criteria into the mitigation plan; just as with any money you spend, you want to understand how to measure its value.

Earned Value Management Systems are only marginally useful in measuring the performance of risk management. While being developed, risk strategies are normally level-of-effort tasks, which give no true assessment of value. However, negative cost reports and schedule variance reports are a good place to start in a holistic, retrospective assessment of risk identification: How many negative variances were caused by known risks, and how many were totally unexpected?

### More Art Than Science

In practice, the execution of risk identification is often substandard. To be done well, this seemingly simple step must be more of an art than a science. Too often, the risk roster becomes loaded down with phantom risks, while real risks are underfunded or ignored. For development programs this can have drastic implications. There may be significant cultural reasons that cause a good process to fail. You, as the PM, can take steps to ensure that a strong risk identification process is in place to give your risk analysis and the rest of your risk process a fighting chance..

# Extending the Enterprise: Linking Supply with Demand

*Lt. Gen. Robert T. Dail, USA*



Gloria Moore, a distribution processor worker at Defense Distribution Depot Anniston, Ala., demonstrates the DLA systems used at the depot for Lt. Gen. Robert Dail (center); Maj. Gen. Bennie Williams, DLA director of logistics operations (right); and Lt. Col. Robert Harney, DDAA commander (left).
Photograph courtesy Anniston Army Depot Public Affairs Office

**W**herever we look in the Department of Defense today, we see opportunities to improve our logistics performance and processes. Whether it's streamlining inventories, reducing storage costs, maintaining production lines, improving fill rates for troops' clothing bags at Recruit Training Centers or military service stocks around the globe, the opportunity for enterprise-level initiatives to improve logistics support for the warfighter has never been better.

The Defense Logistics Agency's ability to deliver American warfighters the right item, in the right place, at the right time, for the right price, every time requires far more than the successful management of the Defense Department's wholesale supplies and suppliers—a role DLA has honed to excellence during its 45-year history.

Our military's ability to generate and sustain combat readiness indefinitely, anywhere on the globe, requires repair parts, troop support material, and energy products to flow seamlessly from the nation's industrial base to where they are consumed in the Services' maintenance activities, posts, bases, flight lines, and in warfighting battlespace. It requires a joint logistics capability that optimizes warfighter support above all else. As the Department's only logistics combat support agency, DLA has a pivotal leadership role in building and transforming the DoD logistics enterprise and ultimately delivering world-class supply chain excellence to America's warfighters.

DLA is on an evolutionary path that has led us from managing supplies, putting them in warehouses, and issuing them to customers, to a point where we have been managing suppliers, using tools such as long-term contracts and vendor-direct delivery. However, the future is about building a DoD enterprise between U.S. Transportation Command, DLA, and the Services' materiel commands that will link supply with demand. Building the enterprise isn't as simple as just linking the technical systems. It's the relationships we establish, the processes, and the ways

*Dail is the director of the Defense Logistics Agency, headquartered at Fort Belvoir, Va. He holds a bachelor's degree in business administration and master's degrees from Boston University, the National Defense University, and the U.S. Army Command and General Staff College.*

# You're the Judge

Many times, government employees honestly believe that they are not being unduly influenced by their personal stake in a situation. They may feel, to the contrary, that their experience from a job gives them special insight into the skills and abilities required to perform a role or function. Bill, who up until 15 months ago, was deputy program manager of a helicopter program executing a $50 million contract for rotor blades from the Hover Devine Helicopter Company, is one of those employees.

Today Bill has a different job within DoD, teaching acquisition policy; he is no longer involved with any matters that impact Hover Devine.

While attending an industry symposium, Bill bumped into the president of the Hover Devine, whom he knew from working on the helicopter rotor blade contract. The president, seizing a good recruiting opportunity, mentioned that Hover Devine had an open position for a new employee in its governmental affairs office, and that Bill would be an ideal candidate for the job. Bill, very interested in the job, is aware that the United States Code has a general rule: "You may not perform government duties that affect the financial interests of an entity outside the federal government if you are seeking employment with that entity."

What is Bill's best response to the president of Hover Devine?

(a) "I'm definitely interested in the job. Please tell me more."

(b) "I would love to, but I was the deputy program manager for a program that involved a large contract with your company. The Procurement Integrity Act bars me for life from working there."

(c) "Thanks, but as long as I'm working in any job in the government, the ethics rules don't allow me to seek employment with anyone doing business with our agency."

that we do business. There's a lot of fertile ground in this area. The challenge for me, as DLA's director, is to partner with TRANSCOM and the Services to build the enterprise (which includes people, processes, and systems), then extend it forward to the warfighting customers. Moreover, we need to push DLA's capabilities down in the supply chain, from wholesale to where the point of sale occurs. It's my belief that there are opportunities for some groundbreaking advancement in these areas over the next two to three years. And the good news is that many of the necessary tools are already in place.

## Laying the Foundation

As DoD's logistics combat support agency, DLA provides and disposes of every supply item required by America's military, whether it's the food they eat; the uniforms they wear; the fuel for their weapons systems; the medical supplies for military health care facilities or combat medics; the repair parts for land, air, and sea conveyances; or the construction and barrier materials for their protection.

DLA has a pivotal leadership role in building and transforming the DoD logistics enterprise and ultimately delivering world-class supply chain excellence to America's warfighters.

At the turn of this century, DLA was using multiple instances of government-developed software systems that allowed us to buy supplies and put them in warehouses. The focus and objective were order fulfillment. Even though it was a phenomenally dependable system at the time, the need for change was already becoming apparent.

When I arrived at DLA in the latter half of 2006, I found an agency that was very well run. My predecessor, Vice Adm. Keith Lippert, USN, had taken the agency through an extremely ambitious four- to five-year transformation period that ended with the deployment of a large-scale Enterprise Resource Planning solution. It was the first large-scale deployment of an ERP in DoD. [Defense AT&L *interviewed Lippert in the January-February 2006 issue*.]

From fiscal years 2001 to 2005, our revenues doubled from $17 billion to $35 billion, primarily as a result of the

global war on terror. At the same time, we began deploying our ERP—the Business Systems Modernization initiative. However, we didn't just place new software on top of existing legacy systems; we rebuilt our systems completely, modernizing not only our technology solutions, but our business processes as well. In December 2006, we completed the fielding of BSM.

## Extend the Enterprise: Link Customer Demands with Suppliers

Although incredibly successful, the byproduct of our transformation efforts was an internal focus by the agency. We had focused on the processes that were critical to the agency's operational architecture that our ERP reflected, at the inventory control point level—the Defense Supply Centers Philadelphia, Pa.; Columbus, Ohio; and Rich-



A member of the DLA Contingency Support Team in Afghanistan checks an incoming subsistence shipment. DLA photograph

mond, Va. Consequently, our metrics had an internal, commodity-oriented focus. They were focused on such things as backorders, purchase request backlogs, and materiel availability. Meanwhile, our warfighting customers had transformed operationally and were telling us that our metrics didn't really mean anything to them. They desired "output metrics" at the retail level.

Today, because of the leadership of my predecessors, we're in a position to take the agency from wholesale excellence to supply chain excellence. The groundwork has been laid and we're now in a position to execute. I'm proud to say that DLA has tremendous capabilities and a lot of influence within the DoD enterprise. As a result, we're ready to leverage our ERP solution to form alliances, relationships, and ultimately, a single national logistics enterprise. We'll partner with U.S. Transportation Command, Army Materiel Command, Air Force Materiel Command, Naval Supply Systems Command, and Marine Corps Logistics Command. Together, we'll extend this DoD logistics enterprise around the globe and link the warfighters' demands with our DLA supplier network.

When I say "extend the enterprise," I mean that we'll take DLA's unique capabilities—our people, process, and systems—and move them out to Air Force logistics centers, to Marine Corps and Army depots, to Navy shipyards, or to any location where U.S. forces are stationed and operating. At the same time, we're going to redefine our agency metrics in order to make them more meaningful and useful to our Service customers. We're going to transition from commodity metrics to output metrics. And I've been telling all of our Service customers that after we agree on these output metrics, I expect them to ultimately hold DLA—and more specifically, our supply centers—accountable for our performance.

We have already started this process at DLA and are driving it home throughout the agency. Just recently, I met with Gen. Bruce Carlson, USAF, the AFMC commander, and we agreed to focus on Warner Robbins Air Logistics Center as the first location to implement tenets of the BRAC [*base realignment and closure*] 2005 (Supply, Storage and Distribution) law. We plan to implement at Warner Robbins in October of this year. There's a lot of work to be done between now and then, but we've agreed that we'll work it together and set the metrics together, all with transparency and openness. We'll use BRAC and the National Inventory Management System as the templates for extending the enterprise, and plan for the Navy to come online with its depots and shipyards in 2008 and the Army the following year. This will, no doubt, be a huge effort, but I believe that the Department of Defense can achieve significant efficiencies in the various supply chains.

## Distribution Process Owner Initiatives

Gen. Norton Schwartz, USAF, is the commander of the U.S. Transportation Command. In this capacity, he is also the Distribution Process Owner (DPO) for DoD. [*Defense AT&L interviewed Schwartz in the July-August 2006 issue.*] He and I meet, together with our senior staffs, on a regular basis; and our organizations are partnering on several initiatives that will build and extend the DoD distribution enterprise. We recently agreed to build a systems architecture that will link TRANSCOM and DLA to better

execute distribution. DLA's Integrated Data Environment provides asset visibility throughout the supply chain. IDE, which allows DLA to view stocks and items on a shelf or in production, is being converged with TRANSCOM's Global Transportation Network, which provides in-transit visibility of items. That convergence will allow DLA and TRANSCOM managers to better execute the total distribution system and to be more responsive and more reliable, building customer confidence in delivery of critical supplies. IDE-GTN convergence will also allow our warfighting customers to use a Web site to view and track their requisitions. As another example, TRANSCOM is the executive agent for automatic identification technologies. DLA will be its enterprise partner, implementing and executing those technologies. Finally, TRANSCOM's Defense Transportation Coordination Initiative will serve as the "artery" of our DoD distribution system that will move DLA supplies in the United States. The TRANSCOM-DLA partnership is strong.

During recent global war on terror operations, DLA also extended its most precious asset—its people—by deploying them overseas in the areas of operations in Southwest Asia. Using the DPO's Deployment and Distribution Operation Centers, DLA contingency support teams and forward-deployed Defense Reutilization and Marketing offices, we have an extensive network of DLA employees, both civilian and military, in places like Kuwait, Afghanistan, Iraq, Qatar, Kosovo—wherever our military forces need our support the most.

There is one final example of where DLA is extending the enterprise. Months ago, I sent my senior enlisted advisor out to all the Services' recruit training centers to find out how well we were doing filling our troops' clothing bags as they enter basic training—how good we were at linking DLA supply with Services' demand. The truth is, we weren't doing so well in this area. The reports were that we were hitting about 65 percent success. Some troops were getting duplicate items, and some weren't getting a full bag. As a result, we've put in place performance-based logistics providers at the training centers and, because we want to ensure the success and viability of the nation's textile industry, DLA will serve as their source of supply. In turn, we'll hold them to an extremely high output standard for inventory management. Essentially, it will make DLA a part of the Services' training process. We already have seen immediate and tremendous improvement.

## The Path Forward

I've highlighted just a few out of many examples of transformational alliances and initiatives upon which DLA is working. They provide a good sense of where we've been and where we're headed. I believe the time is right to form strong, long-standing, open, and transparent partnerships between TRANSCOM, DLA, and the Services. I also believe that DLA is positioned to leverage our recent ERP success and extend DLA capabilities forward as we execute BRAC 2005. We will integrate the complementary capabilities of our workforce with suppliers, measuring supply performance and output.

There are no doubt challenges associated with achieving this vision. For one, DLA is a tremendous organization with a proud history of wholesale excellence. There will be cultural challenges within our own agency as we change



We're ready to leverage our ERP solution to form alliances, relationships, and ultimately, a single national logistics enterprise.

the paradigm to move from viewing DLA as a wholesale operation to seeing it as a supply chain operation. The Services have already invited us into their transformation operations. We cannot miss this opportunity.

These are exciting times for the Defense Logistics Agency. We are involved not only in providing our warfighters the level of support they richly deserve, but also in transforming the agency to meet tomorrow's demands as we all face a changing strategic and operational environment. We're moving the enterprise from its past of managing supplies through the recent past of managing suppliers to today's role—effectively linking suppliers with Services' demand. Our focus will always remain on our warfighting customers.

In short, we are building and expanding the DoD logistics enterprise with our industry suppliers, our government partners, TRANSCOM, and the Services' materiel and supply commands. The achievement of this vision is not a short-term effort, nor can it be accomplished alone. It is a cultural journey and will require a careful, well-coordinated effort by every member of the enterprise. It's the right mission for both DLA and the Department of Defense as a whole.
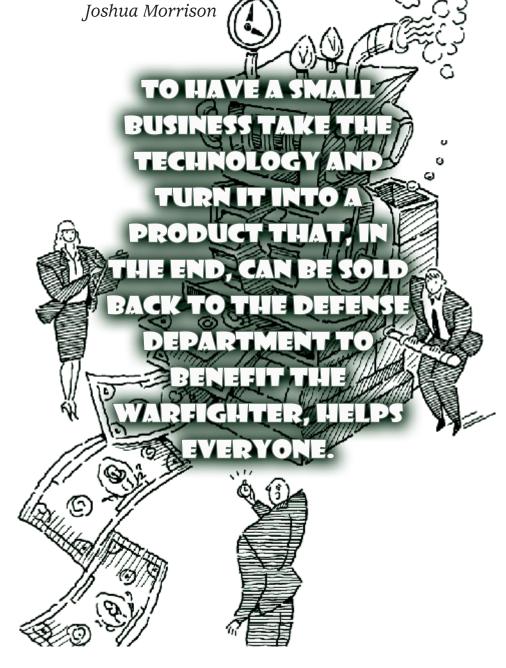
# Partnership Intermediaries and DoD Technology Transfer

*Joshua Morrison*

The ultimate goal of Department of Defense technology transfer is to help the warfighter, and technologies developed in the Defense laboratory system are all aimed at this end purpose. Transferring the technology to a small business for commercialization is a plus, bringing in additional funding to the lab through licensing contracts, and lowering the product cost for Defense acquisition. To have a small business take the technology and turn it into a product that, in the end, can be sold back to the Defense Department to benefit the warfighter, helps everyone. Prime examples are the HOOAH! Bar©, an energy bar created by the U.S. Military that is now sold commercially; the Hearing Pill™, developed by the U.S. Navy to both prevent and reverse noise-induced hearing loss; and the MIOX Purifier Pen, a handheld water purifying device.

> **TO HAVE A SMALL BUSINESS TAKE THE TECHNOLOGY AND TURN IT INTO A PRODUCT THAT, IN THE END, CAN BE SOLD BACK TO THE DEFENSE DEPARTMENT TO BENEFIT THE WARFIGHTER, HELPS EVERYONE.**

## The BomBot™ Success Story

The BomBot™ started as a concept at Tyndall Air Force Base, Fla., where the Robotics Research and Development Group came up with the concept of modifying a commercial remote-control vehicle for counter-IED [*improvised explosive device*] efforts. The West Virginia High Technology Consortium (WVHTC) Foundation, a non-profit organization located in Fairmont, W.Va., took that concept from the airfields at Tyndall to the mountains of West Virginia, and turned it into a shining example of technology transfer and transition.

*Morrison graduated from West Virginia University with a bachelor's degree in information systems management and started work in October 2003 at the WVHTC Foundation.*

Building on the initial design, the WVHTC Foundation licensed, from Battelle Labs, a receiver technology known as the Wireless Ethernet at UHF Frequency board. The WEUF board will allow the WVHTC Foundation to increase the distance from which the TRAXXIS remote-control 4x4 truck could be controlled from 300 – 400 yards up to 2.5 miles line of sight. Gone were the base tires and shocks. The heavier suspension and increased ground clearance allowed the vehicle to carry a 10 lb. load and travel at speeds up to 35 miles per hour. Once the internal research and development was complete, the WVHTC Foundation created a for-profit wholly owned subsidiary, Innovative Response Technologies (IRT), Inc., to build the BomBots.

In April 2006, the first BomBots rolled off the assembly line in response to a competitively awarded $9.6 million contract from the Naval Explosive Ordnance Disposal Technology Division (NAVEODTECHDIV). The contract specified delivery of more than 2,300 Bombots to U.S. warfighters in Iraq and Afghanistan to aid in counter-IED efforts. Between April and September, IRT delivered the BomBots, finishing five weeks ahead of schedule. In September 2006, the first commercial BomBot was sold to the Birmingham, Ala., Police Department.

Completing the technology transfer/transition cycle, the BomBot began as an Air Force technology, was improved by the WVHTC Foundation, became the base technology for a start-up manufacturing company, was sold back to the Defense Department to aid our warfighters, and became a commercial product—all in a span of less than two years.

## Partnership Intermediary Agreement

Legislation has shaped the landscape of federal technology transfer over the years, from the Stevenson-Wydler and Bayh-Dole Acts of 1980 to the Technology Transfer Commercialization Act of 2000. The Defense Authorization Bill of 1991 had one addition that caused a major impact, 15 U.S.C. 3715, which enabled the creation of Partnership Intermediaries. PIs are state, local government, or nonprofit entities that facilitate federal technol-

## Partnership Intermediaries

For more information on the various programs, contact the following:

**DoD TechMatch**
Joshua Morrison
Business Operations
< www.dodtechmatch.com >
jmorrison@wvhtf.org
304-333-6862

**TechLink**
Dr. Will Swearingen, executive director
< www.techlinkcenter.org >
wds@montana.edu
406-994-7704

**FirstLink**
James Rooney, director
< www.dodfirstlink.com >
jerooney@katz.pitt.edu
412-624-1118

**IDHS**
Hugh Montgomery Jr., executive director
< www.idhs.org >
info@idhs.org

**SpringBoard**
Lance Miller, executive director
< http://gospringboard.org >
lmiller@jedc.org
907-463-3662

**T2Bridge**
Dr. Michael Muthig, principal technology transfer specialist
< http://www.t2bridge.com >
muthigm@ctc.com
252-619-3467

ogy transfer. They assist companies or educational institutions in utilizing federal technologies, provide assistance to government Office of Research and Technology Application managers, and offer services that increase the likelihood of success of cooperative or joint activities of the laboratory with small business or educational institutions.

### Partnership Intermediaries

In 1999, Montana State University's TechLink became the first DoD-wide PI. TechLink's primary focus is assisting DoD labs in licensing their technologies to industry for commercialization and transition to DoD operational use. TechLink also assists in establishing Cooperative Research and Development Agreements in support of licensing projects and helps DoD to develop and acquire new technologies by tapping private sector innovation. During the past three years, TechLink has facilitated approximately a third of all DoD licensing agreements nationwide. To date, TechLink has provided a 4:1 return on the dollars DoD spends to support the program.

Since then, more non-profit groups have worked to establish DoD-wide PIs across the United States.

FirstLink, located at the University of Pittsburgh and home of the DoD National Center of Excellence for First Responder Technologies, has a primary goal to facilitate technology transfer activities between DoD and businesses focused on benefiting the first-responder community in the government and civilian sectors. FirstLink facilitates the creation, transfer, and commercialization of technology to improve the ability to prevent, prepare for, respond to, or recover from emergencies and risks to safety and security.

The Institute for Defense and Homeland Security (IDHS) is an organization of university, industry, and federal research and development members dedicated to delivering world-class science and technology solutions in response to national defense and homeland security requirements. IDHS supports research, education, and technology transfer and transition, with an emphasis in

PARTNERSHIP INTERMEDIARIES ARE STATE, LOCAL GOVERNMENT, OR NONPROFIT ENTITIES THAT FACILITATE FEDERAL TECHNOLOGY TRANSFER.

the fields of telecommunications, bio-defense, sensor systems, crisis management, remote presence, and national energy independence.

T2Bridge is a technology transfer program designed to leverage innovative technologies and resources to solve defense needs. The program connects private-sector businesses and researchers in the southeast United States with DoD technologies, research capabilities, funding opportunities, development partners, and procurement needs. This includes helping companies with a variety of technology transfer activities such as obtaining funds for creation of new technologies; taking private-sector technologies and facilitating the acquisition path into DoD; and obtaining licenses to DoD technologies. The goal is to match DoD needs with innovative solutions and to use DoD resources to facilitate the development and transfer of the solutions into DoD. T2Bridge is a cooperative effort between Concurrent Technologies Corporation and East Carolina University. The program is patterned after, and works closely with, TechLink.

The most recent partnership intermediary is SpringBoard, whose mission is to provide Alaskan businesses with financial and technical tools so they can develop products

and services to help meet the needs of the DoD. This program helps to transfer technology from DoD labs to private companies and from the private sector to the DoD. SpringBoard essentially serves as a "broker" or "bridge" for transferring and transitioning technology. As an important component of this program, SpringBoard is developing an education program to enhance science and math skills in K-12 schools.

## DoD TechMatch

DoD TechMatch, a program of the WVHTC Foundation, became a PI in March 2005. DoD TechMatch is different from the other PIs in that its focus is on developing software and databases to assist DoD technology transfer and transition efforts. DoD TechMatch has developed an eponymous Web-based portal that matches registered users with DoD research and development business opportunities. It is a free service. Users register with DoD TechMatch, select keywords that match their technology areas of interest, and DoD TechMatch automatically matches them up with opportunities from FedBizOpps, Grants.gov, Small Business Innovation Research / Small Business Technology Transfer Program solicitations, and various opportunities that originate at the research and development labs across the country. DoD TechMatch is a central source for finding DoD patents available for licensing, DoD technology transfer success stories, and information on major conferences and meetings sponsored by DoD. Work is currently under way to develop a Web-based intellectual property management system to be used by DoD to manage patented technologies and agreements.

A new feature of DoD TechMatch that is being used extensively by the other PIs is the Hot Technologies module. PIs identify technologies created in the labs that have a high commercial potential or are an emerging technology. These technologies are listed on DoD TechMatch under the Hot Technologies section. The purpose is to provide industry a quick overview of the technology and contact information to find out about licensing opportunities. These Hot Technologies are matched against the registered user base in the same way as other opportunities. Two licensing agreements in the past two months were signed with companies that found these technologies on DoD TechMatch.

## OTT Partnership Intermediary Network

The growing number of PIs has created the need for a network to help them work more effectively and efficiently with one another, industry, and academia. TechLink was asked to develop processes to coordinate the activities of current and future PIs. OTT PIN—the Office

# Sales Through the DoD 5000 Process

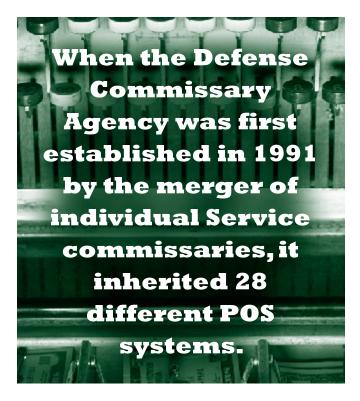## The Defense Commissary System

*Robert E. Comer* ▪ *Donald Egan*

Following DoD policy, the Defense Commissary Agency (DeCA) self-identified its new commissary point-of-sale system—the Commissary Advanced Resale Transaction System (CARTS)—for DoD 5000 process review in 2003. CARTS was designated as an Acquisition Category IAM (ACAT IAM) program, as its funding exceeded both the $32 million single-year and $126 million total program thresholds (both FY 2000 dollars). CARTS thereby became the first known Major Automated Information System (MAIS) acquisition program to go through the revised 2003 DoD 5000 process from program inception. This article summarizes DeCA's experience with the process and presents lessons learned and best practices that future programs might employ.

### Providing the Commissary Benefit

DeCA manages DoD commissaries to provide a non-pay compensation benefit to military personnel and other designated beneficiaries. Two hundred and sixty-three commissaries around the world provide groceries and household items at cost, with savings that exceed 30 percent over their civilian counterparts. The commissary benefit is consistently listed as one of the top quality-of-life benefits in surveys of military personnel. Commissaries also serve the DoD by enhancing recruitment, retention, and readiness.

Within every store, the point-of-sale system is the center of operations and a key customer interaction point. A POS system is the collection of checkout lanes, terminals, scales, printers, and other equipment; along with a server to manage prices and quantities, record transactions, and communicate with DeCA headquarters. DeCA commissaries contain more than 3,000 checkout lanes.

When DeCA was first established in 1991 by the merger of individual Service commissaries, it inherited 28 different POS systems. DeCA fielded its first unified and modernized POS system in 1996. In 2002, it modernized the server hardware and software and extended the commercial maintenance contract to May 2008. By that date, the checkout equipment will have withstood 12 years of hard wear and tear. DeCA initiated the POS re-

When the Defense Commissary Agency was first established in 1991 by the merger of individual Service commissaries, it inherited 28 different POS systems.

placement program in 2003 to both replace aging equipment and provide customers with new features such as self-checkout lanes, gift cards, and electronic coupon and check verification.

### It's Just a Cash Register
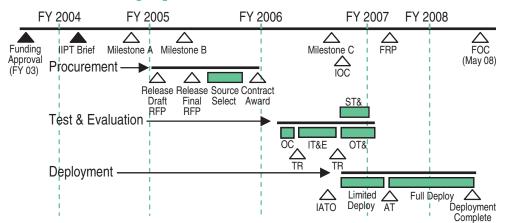
DeCA falls under the human resource management mission area of the Office of the Under Secretary of Defense for Personnel and Readiness (OUSD(P&R)). DeCA first identified the program to P&R in a meeting in 2003. The DeCA PM staff soon became immersed in the Office of the Secretary of Defense ACAT I review process. This included supporting integrating integrated product team (IIPT), working-level integrated product teams (WIPTs), and the Networks and Information Integration Overarching Integrated Product Team (OIPT) meetings, reviews, and other briefings to review the CARTS program. The CARTS program kickoff meeting with the IIPT was in December 2003. It had two immediate results.

*Comer is a retired Army lieutenant colonel, now serving as Defense Commissary Agency's CARTS program manager. He received a bachelor's degree in zoology from North Carolina State University and a master's degree in acquisition logistics from the Air Force Institute of Technology. Egan is a program manager at the Logistics Management Institute supporting the CARTS program. He received a bachelor's degree in computer science and a master's degree in library science from the University of California, Berkeley.*

First, DeCA needed to more clearly define its operating environment, requirements, and alternative solutions to the OUSD(P&R) stakeholder team, with primary input coming from the DeCA user community to justify the program need. This was addressed by OUSD(P&R)'s forming a WIPT to work with DeCA on program requirements, and DeCA's providing a new and more detailed briefing to describe the program. Over the next few months, DeCA and OUSD(P&R) representatives met many times, and the briefing underwent even more revisions. Admittedly, there were times when we had to ask ourselves why we were going through this process as a major program, given that we were not developing a major weapons system but simply buying 3,000 sets of commercial grocery store checkout lanes and approximately 280 store back-office servers with supporting commercial off-the-shelf (COTS) software. However, we always concluded that the process was inherently good, and the guidelines were flexible enough to accommodate a COTS system.

Second, OUSD(P&R) wanted DeCA to establish a more robust program management team. DeCA made organizational adjustments that included establishing a program management office (PMO) to oversee all DeCA programs, and recruiting and appointing co-author Comer as the full-time Defense Acquisition Workforce Improvement Act (DAWIA) Level III-certified (Program Management) CARTS program manager. After researching the program office composition of several major point-of sale-vendors, Comer set up a matrix-supported CARTS PMO. The core functionality of the PMO came from three major DeCA directorates: Resource Management provides the program control function; Information Technology provides the system engineering function; and Operations provides the logistics support function. This arrangement, with augmentation from the user community, provided the PMO with a dedicated CARTS integrated product team (IPT). DeCA also appointed a DAWIA Level III-qualified program executive officer to oversee all its acquisition programs.

## Process Tailoring: A Grocery CARTS' Worth of Documentation

The DoD 5000 process requires development of a number of documents to describe the project and explain how the program will be planned and managed throughout its life cycle. The following is a partial list of key acquisition documents that detailed our planning activities:

- Initial Capabilities Document
- Analysis of Alternatives
- Capabilities Development Document
- Acquisition Strategy
- Economic Analysis
- Technology Readiness Assessment
- Information Support Plan
- Test and Evaluation Master Plan
- System Engineering Plan.

Program managers live for the challenge of guiding a program through the various milestones. After all, they spend years training for the opportunity and are excited to get to work; however, that excitement can sometimes turn to frustration if the resources are not available to accomplish the mission, or if there is a lack of leadership support. The leadership support at DeCA has been outstanding. Realizing early on that it did not have government resources to spare for the required planning and to develop the related acquisition documents, DeCA obtained the services of the Logistics Management Institute to assist with developing documents and providing PM support. This additional support allowed DeCA to tackle the documentation requirement aggressively while still ensuring quality. Each document was reviewed by the DeCA IPT and submitted for DeCA-wide staff review before being submitted to OSD for coordination.

Only a few documents required multiple reviews or had significant issues. One was the Analysis of Alternatives, which went through extensive review by OUSD(P&R). Issues included coming to agreement on the range and definition of the alternatives and how well the cost estimates supported them. Those discussions also affected the subsequent, more detailed Economic Analysis. Another was the Technology Readiness Assessment, where the issue was whether it should even be required at all, since DeCA's solution was to acquire commercial products that had proven track records in the commercial grocery industry; required no software development or integration; had no military application; would not interface with any military application; and would not require the imple-

## Initial CARTS Deployment Schedule

# Nineteenth International Defense Educational Arrangement (IDEA) Seminar

**19th IDEA Seminar**

## IDEA

*International Defense Educational Arrangement*

## June 11-15, 2007
### *To be held in Fort Belvoir, Va.*

The 19th International Defense Educational Arrangement (IDEA) Seminar will be held at the Defense Acquisition University (DAU) campus on Fort Belvoir, Va., from Monday, June 11 to Friday, June 15, 2007.

The seminar objective is to improve the economy, efficiency, and effectiveness of international training and education for acquisition/procurement management by active cooperation among national defense educational institutions with similar goals.

The seminar will be a theme-based format, with seminar panels; will include an industry day; provide for individual participation; and will provide positive information exchange and feedback.

The seminar is sponsored by IDEA, which consists of defense acquisition educational institutional representatives from the United States, United Kingdom, Germany, France, Spain, Sweden, and Australia.

Attendees are Defense Department/Ministry and defense industry employees from the seven sponsoring nations who are actively engaged in international defense acquisition and training programs. Other nations may participate by invitation, and it is anticipated that several Pacific countries will attend this year.

Contact an IDEA team member
for additional seminar information:

United States: 703-805-2308 or 5151, or e-mail:
**internationalseminars@dau.mil**.

Updated information can be found on our Web site at
<**www.dau.mil/international/international.aspx**>.

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> ## The Commissary Advanced Resale Transaction System became the first known Major Automated Information System acquisition program to go through the revised 2003 DoD 5000 process from program inception.

mentation of any new technology. After some discussion, DeCA agreed to complete a brief submission. The Technology Readiness Assessment was, in some ways, reflective of the entire document suite, in that the DoD 5000 documents are understandably oriented toward large-scale military and weapons systems applications, but not all DoD systems—such as CARTS—fit that mold.

Overall, the various OUSD(P&R) staff specialists who reviewed the documentation did so quickly and were helpful in addressing comments. Several of DeCA's documents were cited by OUSD(P&R) representatives as being very well-executed and models for future programs.

## We are Here to Help

The DeCA CARTS PM first met with OUSD(P&R) representatives to identify the program in 2003. Both the Milestone Decision Authority—assistant secretary of defense for networks and information integration (NII)—and the under secretary of defense (P&R) assigned staff representatives to work with DeCA. These two key individuals and the DeCA PM worked together through Milestones A and B and, at the time of writing, are still doing so as the project moves toward Milestone C. As noted earlier, DeCA first briefed the program to the full OSD IIPT in December 2003. The next two months were spent working with the program WIPTs to develop a common understanding of the program. After that period, most of the interac-

tions focused on working with individual OUSD(P&R) offices and on reviews of specific documents. Most of the work was accomplished electronically, with each document formally approved by both DeCA and OUSD(P&R) as the final process.

Throughout, the NII and P&R representatives were cognizant of progress and issues. As the program drew near to Milestones A and B, they conducted weekly teleconferences with the CARTS PM to review action items and to ensure that the project remained on schedule and achieved the milestone. These weekly teleconferences were key to identifying and resolving issues early, thus keeping the program schedule on track.

The OUSD(P&R) staff often get a bad rap for being too bureaucratic, inflexible in their interpretation of the acquisition guidelines, and for not being willing to help. It is no wonder that PMs sometimes shy away from this kind of help. However, those involved in the CARTS program found working with the OUSD(P&R) staff an enjoyable experience that was truly beneficial to the program. Like all programs, CARTS had its inherent risks—such as a very aggressive schedule that appeared to be exacerbated when coupled with the OUSD(P&R) oversight and approval process. During a discussion of the schedule risk, the NII Overarching Integrated Process Team leader commented to a nervous PM and PEO that he and his OUSD(P&R) staff would help make CARTS a success. Those words have held true today and were backed up by a staff of true professionals who were consistently devoted to the program throughout the process.

## Lessons Learned

In a program as large as CARTS, and with details of the new DoD 5000 process still being ironed out, everyone learned many lessons. A post-Milestone B review between DeCA and OUSD(P&R) identified the following as among the most important:

- DeCA benefited by identifying the CARTS program, at its inception, for DoD 5000 oversight and by embracing the process. Early meetings between DeCA and OUSD(P&R) staff clarified the program goals and DoD 5000/Joint Capability Integrated Development System (JCIDS) process requirements for both sides. DeCA and OUSD(P&R) established a core team of action officers who stayed on the project throughout and who coordinated and staffed the program with management and other stakeholders at both DeCA and OUSD(P&R).
- DeCA established a dedicated program team, led by an acquisition-qualified PEO and PM; and an internal stakeholder team that mirrored the OSD IPT functions.
- The OUSD(P&R) staff was committed to both the review process and DeCA's program schedule. The staff worked closely with DeCA on planning activities and document review, providing timely responses and increasing communications and coordination as the pro-

gram neared milestones. The Human Resources Management Mission Area representative was particularly proactive in monitoring OUSD(P&R) reviews and the project schedule.
- DeCA used the DoD 5000 documents as its primary program documentation and guides, not just as required "shelfware" paperwork. DeCA hired a contractor experienced in both the DoD 5000 and DeCA business functions in order to apply the focused resources and develop high-quality documents for DeCA review and approval prior to submission to OUSD(P&R). This minimized the number of cycles  and potential delays between OUSD(P&R) and DeCA and also promoted confidence within OUSD(P&R) concerning DeCA's management of the project. The contractor participated directly in DeCA/OUSD(P&R) meetings and worked directly with OUSD(P&R) specialists on technical issues. This also reduced review and cycle times.

## The Outcomes

Milestone A was achieved in February 2005, and Milestone B in November 2005. As a direct result of program success, the MDA delegated milestone decision authority to the DeCA director in the Milestone B acquisition decision memorandum. Both of these milestones were approximately a quarter behind DeCA's initial schedule. However, the OUSD(P&R) staff were cognizant of the criticality of DeCA's procurement and deployment schedules and, through the past year's work, developed sufficient confidence in the program's approved acquisition strategy to allow DeCA to release the final Request for Proposal to industry before obtaining Milestone B approval. Because of the close collaboration between DeCA and the OUSD(P&R) staff, the project remained on schedule. DeCA's initial 2003 program schedule called for contract award in September 2005. The contract was actually awarded in December 2005 (see the graphic on page 25).

DeCA's CARTS program was the first to go through the revised 2003 DoD 5000 process from program inception to Milestone B. It was an ACAT IAM, using a full-and-open-competition acquisition strategy for COTS hardware and software, and was an atypical DoD application. Despite these potential hindrances, through close cooperation between DeCA and the OSD staff, it was successfully managed through the DoD 5000/JCIDS and procurement processes without major deviation from the program schedule or direction. The program is currently in the system development and demonstration phase, with the results to be seen in commissaries near you in 2007, and with a projected full operational capability by May 2008.
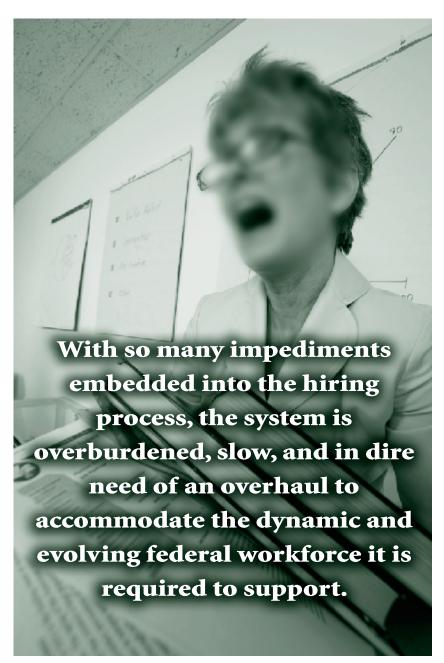
# Developing a Capable, Agile Civilian Workforce

## Human Capital Strategic Planning and Management in Action

*Marcia E. Richard*

For more than a decade, the federal government has been downsizing; since 1993, it has reduced its workforce by more than 324,000 full-time employees, with the greatest number of reductions taken within the Department of Defense. Around the year 2000, many people began to realize that much of the downsizing had been done without sufficient planning. The negative impact of that poor planning is now permeating—some would say at a rapid rate—the entire federal government. As pointed out in the President's Management Agenda and other documentation, such as Government Accountability Office Report 01-263-2000, most reductions were accomplished through hiring freezes and across-the-board cuts, rather than strategic reductions in targeted career fields. Also, with so many impediments embedded into the hiring process, the system is overburdened, slow, and in dire need of an overhaul to accommodate the dynamic and evolving federal workforce it is required to support.

Today, in almost any forum one attends where government-wide and/or agency-specific issues are being addressed, human capital strategic management is one of the primary agenda items under discussion and debate. The good news is that many people throughout the federal government, some in very senior positions, are seriously analyzing the issue, developing strategic plans, and—most important—providing guidance for implementing those plans in an attempt to manage the challenges. They also plan to take

> **With so many impediments embedded into the hiring process, the system is overburdened, slow, and in dire need of an overhaul to accommodate the dynamic and evolving federal workforce it is required to support.**

*Richard is currently on the staff of the Assistant Secretary of the Army (Acquisition, Logistics and Technology) in the strategy and performance planning division.*

full advantage of the opportunity to reshape the federal workforce in a manner that will more appropriately support current and future missions of federal departments and agencies government-wide.

As I enter my 25th year of federal service, all within DoD, I am intrigued by the concept of strategically preparing for the future federal workforce. In an attempt to better understand what is being done in this arena and to find out where I fit and how I can contribute, I decided to speak with several senior leaders who are mindfully and energetically working the issue. This article shares my findings.

## Facing a Potential Crisis

**Patricia Bradshaw** is the deputy under secretary of defense for civilian personnel policy in the office of Dr. David Chu, the under secretary of defense for personnel and readiness (USD(P&R)) and the chief human capital officer for DoD. In addition to providing corporate leadership in civilian human resources, Bradshaw also provides management, implementation oversight, and senior coordination of the civilian Human Capital Strategic Plan (HCSP).

During my interview with Bradshaw, she explained that although there is still much work to be done, significant progress has been made on the HCSP within DoD, specifically to align the HCSP with DoD strategic priorities. Bradshaw also explained that multiple initiatives are currently in place to attract new talent, retrain current employees for new and/or different work assignments, and implement programs to train and develop future leaders. When I asked if we have an aging workforce crisis, Bradshaw said, " A potential crisis exists, but only if we don't take proper and immediate action to manage identified high-risk areas." She said although still a major challenge, two things that will significantly assist in successfully implementing the HCSP are development of more effective and efficient ways to execute the up-front hiring process; and implementation of management tools such as the National Security Personnel System (NSPS), which allows managers more flexibility in selecting, training, and appropriately compensating employees.

## A Challenge and an Opportunity

**Gail McGinn**, deputy under secretary of defense for plans, told me that the DoD HCSP is both a management challenge and an opportunity to properly reshape the workforce. One challenge, McGinn said, is the difficulty of getting all the parties to agree on the appropriate direction to take on any given issue because there are so many stakeholders with various perspectives. Another challenge is to have policies gain support to make legislative changes that will allow greater flexibility in the use of human capital. An example is to allow an acquisition professional to receive training in a foreign language—something, McGinn explained, that could be extremely valuable in today's global environment, not only to the individual but to the

accomplishment of the mission for the DoD. One of McGinn's many responsibilities is to develop and track metrics to ensure that required progress is being made, as well as to alert the leadership if there is insufficient progress in any particular area.

## Four Areas of Focus

The last person with whom I spoke within the Office of the USD(P&R) was **Dr. Carl Dahlman**, a highly qualified expert brought into the Department from industry specifically to study, analyze, and provide guidance on DoD HCSP implementation. Dahlman thinks that there should be a top-down/bottom-up approach with focus on four specific areas that need to be addressed:

- Inventory Management—examining the current workforce to determine the right mix of talent for each functional area; continuous sorting of the workforce to keep up with and manage the changing environment
- Leadership Selection and Development—selecting and grooming individuals for leadership positions
- Training Plans—systematically laying out individuals' training requirements
- Organizational Structure—determining who manages which people.

Dahlman explained that senior leadership provides the direction, which flows down; however, he emphasized the necessity of closing the loop, which requires individuals from the functional areas and human resources to provide feedback to top leadership on the status of tools they may require to follow instructions.

## Making Progress

I decided to go outside the Department of Defense to learn about the human capital strategic management challenges and initiatives in another department. I selected the Department of Homeland Security (DHS). **Marta Brito Perez** is the chief human capital officer. Formerly associate director, human capital leadership and merit system accountability, Office of Personnel Management, Perez is known for being the architect of the Human Capital Assessment and Accountability Framework (HCAAF), a comprehensive collection of strategies, tools, and methods to assist agencies as they develop and implement human capital strategic planning throughout their organizations.

Currently, DHS has approximately 180,000 full-time and part-time employees and 20,000 temporary employees, including the Military (Coast Guard). Perez explained that the HCSP is aligned with the DHS mission, and each agency subsequently includes specific objectives that address its individual and/or unique needs. She said that the degree of effort required to develop and implement HCSP depends a lot on the age and maturity of the agency within DHS, with more mature agencies being more advanced in the process. She stressed the importance of

identifying career patterns, a methodology of determining the most effective way to manage the career path of an employee or group of employees based on their career status.

In February 2001, the Government Accountability Office added human capital management to the government-wide "high-risk list" of federal activities. I asked Perez whether she thinks the descriptor is still valid. She believes that it is; however, she also thinks that we are not yet in a crisis state and will not arrive at one as long as we take the necessary actions required to correct existing and identify future problems pertaining to the condition of the workforce. "HCSP is a leadership initiative, not a human resources initiative; it is HR's responsibility to assist with developing policy and guidance," she said. In her opinion, HR has various parts and components, and the combined outcome—the "yield"—is human capital. Perez ended our conversation by stating that even though there are still many challenges ahead, she is very optimistic and excited about the progress being made.

## Challenge of Inadequate Data

The number one strategic goal of Under Secretary of Defense for Acquisition, Technology and Logistics Ken Krieg is "a high performing, agile, and ethical workforce." In an effort to implement this goal, he created the position of director of human capital initiatives (HCI), and **Frank J. Anderson**, president of the Defense Acquisition University, is now dual-hatted as the director of HCI for AT&L.

Anderson defines the objective of human capital strategic planning as senior leadership taking deliberate action to ensure the right people with the right skills are in the right place at the right time to support our national security mission. He believes that HCSP is not something we have done well in the past, and he is working very closely with Bradshaw, as she evolves the DoD strategy, on how to best shape the DoD future civilian workforce. "Led by Ken Krieg, the military services and component acquisition executives are meeting quarterly to thoughtfully address the challenges and identify opportunities to right-shape the future workforce," Anderson explained. He agrees with the senior leaders I previously interviewed and feels we are not currently in a state of crisis; however, there is a "looming crisis," and we must continue to address and concurrently accelerate deployment of our HC initiatives.

Anderson says this is a very exciting time. He feels he is getting great top cover from Krieg. "People would be surprised at how much time Krieg is personally investing in working our people strategy," he told me. He added that Paul Denett, administrator, Office of Federal Procurement Policy, has made HCSP a top priority for all federal agencies.

**With already-strained DoD dollars, senior leadership will be forced to make extremely hard choices when determining how much funding they are able to allocate for the development of the current and future workforce.**

When I inquired about one of his biggest impediments to implementing the HCSP, Anderson cited the accuracy of the data. He explained that while the data are accurate enough to analyze and build a basic framework, there is, nonetheless, a deficiency that must be addressed. One of the ongoing AT&L initiatives (called "Data Green") is focused on cleaning up the workforce data.

Anderson is a strong proponent of teaming and information sharing; he indicated that all lessons learned are being passed on to the civilian sector through the Federal Acquisition Institute. He thinks that NSPS is an excellent management tool. "It allows managers more flexibility and discretion in employee work assignments and proper compensation aligned with employee contribution," he said. "But most important, it is a critical tool for compensation flexibility in recruiting new talent." Anderson concluded by pointing out that we are not where we want to be or where we need to be, but we have come a very long way in a short period of time, and we are continuing to pick up speed.

## Funding Constraints

Determining where and how to obtain funds to revise or create new programs is always a major challenge. In DoD,

# Culture Change in the Navy

## The DD-21 Destroyer Case

*John Horn ▪ Anne Cofield ▪ Robert Steele*

*The DD-21 case study is a program manager's course case that has been shortened for this article. The intent of its authors is for the case to be used to facilitate classroom discussion and not to illustrate either effective or ineffective handling of a situation. The original case study was written by James Carter, professor of acquisition management in the program manager's course at the Defense Acquisition University.*

I n the grey pre-dawn hours of a cold February 2001 morning, Navy Capt. Bill Hughes, the program manager for the ZUMWALT class Destroyer (DD-21), rifled through the correspondence piled on his desk at the Naval Sea Systems Command (NAVSEA) as he sent the following five-word e-mail to the director of the optimal manning program at Program Executive Office Surface Strike: *Reduce Manning! Repeat, Reduce Manning!*

The current principal theater surface combatants, the CG-47 Battle Cruisers and the DDG-51 Destroyers, were manned in excess of 300 sailors. The DD-21 was being designed for a crew of 95 officers and enlisted personnel. The viability of the DD-21 program itself was in serious jeopardy, as the new administration was expected to take a hard look at all defense programs. Hughes pondered the decision he faced. Should he let the Chief of Naval Operations (CNO) and his staff continue to communicate with the fleet, or should he proactively embark on a paradigm-changing effort of his own?

### Revolution, Not Evolution

The DD-21 represented a revolution, not an evolution, in Navy shipboard customs, traditions, policies, and warfighting practices. Despite a well-defended budget and strong program sponsorship in the Pentagon, Hughes was dissatisfied with the less-than-enthusiastic support he was getting from the warfighters.

Hughes knew the fleet was waiting for answers to the major concern of all sailors: how they were going to fight and stay alive in this new warship. The CNO and staff had been engaged for several years in DD-21's manpower and

*Two prototype designs … featured advanced technology in hull design, propulsion, electrical distribution, weapons, sensors, software, and hardware. The fleet's natural skepticism regarding the new technology was further increased by the paradigm-breaking reduction of manning to 95 personnel.*

automation studies and had been sharing the results extensively with the fleet commanders and the rank-and-file sailors.

Normally, the warfighters could be counted upon to zealously support a new shipbuilding program, but Hughes was alarmed at the lack of response to the CNO's communications initiatives. It appeared to him that few at the waterfront shared his sense of urgency for getting the DD-21 to sea. He wondered if anyone embraced his vision for the DD-21.

Looking ahead, Hughes started to plan for the program financial battles that he thought would begin in the next several weeks. He knew that he needed to have avid user sup-

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port to win those battles and save the program. The new administration was reviewing the DoD budget, and the White House had made it clear that the additional funding necessitated by the previous administration's neglect was in jeopardy. Furthermore, the new administration promised a tax cut. It was rumored that DD-21 and other high-dollar programs were going to finance the tax cut.

To be successful in the financial battles, Hughes needed to get strong user support for the DD-21, but the very features that made the ship so appealing to Pentagon leadership had the opposite effect on the fleet. The fleet commanders didn't believe that the DD-21 could be sailed with a crew of 95. The DDG-51—less complex than the DD-21—had a crew of more than 300.

The reduced-crew ship design relied on improved, automated information management. During combat, the ship's sensor systems would be able to detect an impact, hull breech, or fire and then would initiate fire suppression. Damage assessment would be automatically evaluated by diagnostics at the impact area. Damage estimates would then be forwarded to the command along with the status of all mission-critical systems. The replacement-parts list would be automatically verified and sent to the shore-based supply depot. If necessary, there would be video teleconferencing technical assist calls for questions surrounding mission-critical systems.

The ship's human-centric design focused on the sailors' quality of work and quality of life. Innovative plans included staterooms replacing 90-man berthing compartments; automated food service replacing mess-cooking duties; and improved design, material, and surface coatings to minimize chipping, hammering, and painting the ship.

## Unique Acquisition Strategy

Industry was provided an overarching set of operational requirements and cost parameters instead of detailed design and performance specifications. The performance specification document for the DD-21 was only 52 pages. This less restrictive approach encouraged innovation and offered industry the maximum latitude to develop, build, deliver, and support a state-of-the-art, effective fighting ship. The paradigm change was as significant for prime contractors as it was for the Navy.

Two industry teams were competing for DD-21. Bath Iron Works (BIW) led the Blue Team, and Ingalls Shipbuilding, Inc. (ISI) led the Gold Team. The Blue and Gold Teams had the flexibility to trade costs within established goals and thresholds through the use of the cost as an independent variable (CAIV) process.

Hughes knew that he had to satisfy the users—the warfighters in the fleet. He needed their support or his

program would be dead in the water when the budget fights began.

## What's the Solution? Two DAU Professors Respond
### Anne Cofield:

The Navy utilized a streamlined acquisition approach for developing the prototypes because they wanted maximum innovation and creativity from industry. Competing industry teams guided by Navy researchers in human systems integration produced two prototype designs that featured advanced technology in hull design, propulsion, electrical distribution, weapons, sensors, software, and hardware. The fleet's natural skepticism regarding the new technology was further increased by the paradigm-breaking reduction of manning to 95 personnel.

### Issues

The Request for Proposal provided an overarching set of operational requirements and cost parameters, not the usual detailed design and technical specifications. RFP requirements included a reduced manning goal of 95, thus using automation to replace sailors. A major stakeholder, the fleet, had operational/survivability concerns, and their support was tempered by their skepticism. They were not confident that a crew of 95 could fight the ship. Rumors of congressional and Pentagon budget cuts and the ensuing possible program cancellation elevated fleet suspicions. Reduced manning goals required a change in traditions and customs. This was resisted on the waterfront.

### Decision Criteria

Hughes would need to select a course of action to bring about the needed paradigm change in naval customs and traditions; he would need to convince the fleet that the DD-21, as designed with its new concept of operations, would meet the operational requirements.

### If I Were Hughes …

If I were Hughes, I would get the word out to my trusted group of advisors that it was their job, as well as mine, to inform the fleet users/warfighters/stakeholders of the criticality of the reduced crew. Staff and stakeholders, armed with education and information, would feel—and genuinely be—ready to carry the communication ball. That's empowerment. Both would need to hear ground truth from the PM—that is that the DD-21, as designed, would replace obsolete legacy systems with automated systems, provide a higher level of mission-critical warfighting performance, and provide a substantially higher quality of life at sea for the crew.

Stakeholder briefings are intended to educate, inform, and eventually bring about a change of attitude among stakeholders. A change in stakeholder attitude would put the program in far better shape for the expected budget

battles and would encourage fence-sitters to ally themselves with the DD-21.

I would lead the education and informing of my stakeholders and various media organizations and not leave it to Office of the Chief of Naval Operations (OPNAV). I would do that with multiple in-person presentations up and down the chain of command, and media organization interviews and presentations on a continuous basis for as long as it took. I would recruit media to tell the DD-21 story.

### Bob Steele:
Hughes was facing a three-headed monster as he moved forward. He would need to work on all three fronts simultaneously, engendering user support for the program, preparing for the budget battles ahead, and working to gain acceptance of an overall paradigm shift within the Navy to enable the proposed two-thirds reduction in crew size.

### Issues
The most significant issue for Hughes was how to get the users' unqualified support for the program. Hughes would have no chance of winning the budget battles and keeping the program alive without grassroots support from the sailors. Because of the radical change from previous manning levels, there was understandable skepticism on the part of the users that the ship would actually be able to operate, fight, and survive. Breaking down the communication barrier between developers and users would be critical to successful defense of the program. The huge paradigm shift in standards of crew manning levels was a significant issue.

### Decision Criteria
Level of user support was the most significant decision criterion and Hughes would need to focus on this. The key question would be what approach to use in mobilizing the users' support quickly and effectively, thus eliminating any doubt regarding his level of commitment to the user. Enthusiastic user support would enable Hughes and the program to effectively address the pending budget battles.

### If I Were Hughes …
If I were Hughes, in order to effectively address the program issues, I would take a two-pronged approach, while addressing the three separate concerns. I would proactively address both the user side of the problem and the budget battle issues.

First, I would need to improve the user involvement in the program. A series of technology demonstrations would show the users what they would get with the new ship. These demonstrations would prove that the ship could be effectively operated with a crew of 95. Along with these tech demos, I would get the program office

to demonstrate the advantages of human-centric ship design.

Focusing on the improved living and working conditions would engender a comfortable acceptance and would encourage greater support from the sailors. Along with these demonstrations, the program office would need to immediately make an effort to reach out and involve the user community directly in program activities, including requesting additional user involvement in integrated product teams and greater user representation at critical program meetings and reviews. This would show that the program office was intent on meeting the customer requirements and would gain the users' buy-in for the program.

Second, to address the financial concerns, I would prepare a fully supportable and justifiable budget. It would be of key importance to documenting the cost savings from the manning reductions. Such information could be presented as both an operational cost savings and a life cycle cost savings. Developing and quantifying the cost avoidance (personnel costs) would further justify and support the program. Clearly, having the sailors lined up to support the program would be essential. Proactively developing potential program de-scoping in association with the users would enable successful execution, improve communications, and ensure that customer needs continued to be met evenly with a potentially reduced funding line.

## The DD-21 Case as a Teaching Tool
### John Horn:
This case is about deciding how to implement a change in thoughts, beliefs, and culture of the mainstream Navy. Navy leadership and the CNO had a severe problem—not enough sailors to operate the fleet of Navy ships. They had two choices: reduce the number of ships, or reduce the number of sailors required to operate the ships. The CNO and his leadership team decided to reduce the number of personnel and instructed the research, development, and acquisition team to design all future ships with reduced manning.

This case puts the student in the position of the PM who was tasked to design the DD-21 destroyer with a crew of 95. The CNO dictated the change, but the vast majority of the warfighters didn't believe that operating a destroyer with a crew of 95 was possible. When discussing this case in the classroom, students would defend their decisions as to what they would do if they were the PM.

As the case teacher, I want students to struggle with how they would implement change both within their organizations and with their stakeholders if they, as PMs, were in a similar position. What specific actions would they take? I would open the discussion with a seemingly simple but actually very complex question: Is it Capt. Hughes'

responsibility to convince the fleet commanders to support the CNO's decision? Initially, most students would probably answer, "No" because the fleet commanders work for the CNO. But some students may argue that the program would not be successful without the commander's support; therefore, gaining that support would be the PM's responsibility.

During the dialog, I would ask the students the root-cause concern or issue for the warfighter, with the objective of engaging the students in a debate comparing the culture and focus of the warfighter with that of the Pentagon staff officers and/or program office personnel. I would ask such questions as: What is a successful program to the warfighter? What is a successful program to a PM? And to a Pentagon staff officer? Why are the objectives different for these three groups? These questions would help the students start considering the major components of culture: experience, viewpoint, and perception.

As you can see from the two professors' viewpoints, there are differences both in perception of the problem and the actions necessary to ensure program success. I would build upon these differences by asking this difficult question: What specific action(s) would you take to build user support? I would then ask my typical follow-on questions: Would that work? What are the consequences of that action? What would you do if your action has the opposite effect from what you expected? Using this questioning technique, I would attempt to highlight and promote debate between two or more factions. The more energized the discussion, the more likely that students would start asking each other tougher and tougher questions and thinking critically.

Facilitating a smooth transition to a discussion on changing the culture within the program management office might be a challenge, but a necessary one. It would be crucial to address how the students would implement change within their organizations. Using similar questions, I would spark a discussion or debate on whether their proposed actions would be effective or ineffective.

Most people will agree that the only certainty about change is that it will occur. So managers and leaders at all levels must deal with change. If a leader doesn't manage change, change will manage the leader; therefore, guiding through change is a key component of program management training. Cases such as this one provide the opportunity for future program managers to wrestle, in a safe classroom environment, with dilemmas and to develop critical leadership skills.

there are some programs that are funded by the OSD for training and development—for example, the Defense Leadership and Management program and the Executive Leadership and Development program; however, most education, training, and career development are funded through the Services.

With already-strained DoD dollars, senior leadership will be forced to make extremely hard choices when determining how much funding they are able to allocate for the development of the current and future workforce. This has always been a challenge, and if history is a guide, when the budget is extremely tight (as it is now because we are at war), hiring, education, training, and career development funds are usually the first to be cut. But there is a difference now, compared to previous times, according to leaders like the five cited above: if human capital planning and management are not implemented, the federal civilian workforce is destined to enter into a crisis state in the near future.

## Future Looks Bright

We are preparing for the future federal workforce. Senior leaders are not only paying attention, but are actively engaged in HCSP. In 2001, I initially became engaged in HCSP while working for the OUSD(AT&L) in the Office of Acquisition, Education, Training and Career Development. At that time, there was mention of HCSP, but to the best of my knowledge, very little action was being taken—not only in AT&L, but throughout DoD.

In spite of the challenges of determining how (or if) required funding will be allocated to properly implement HCSP, I still feel energized and inspired. Not only are people everywhere talking about HCSP, but analysis has been done; policy and guidance are being developed; programs are being put in place; and implementation is happening all over, on multiple levels. If we continue to move forward, it appears that the aging workforce crisis will not come about because actions are currently being taken to ensure that the right people with the right skill sets are being aligned with the right positions to ultimately satisfy the mission. Management tools, such as NSPS, are being implemented to assist managers in more appropriately running their organizations and accomplishing their missions.

Senior leaders have made it a priority to prepare for the future federal workforce, and we're seeing results with supporting metrics.

# Should Opportunity Management be Added to my Programs Acquisition Strategy?

## *Will Broadus ▪ Iris Metcalf ▪ Phil Littrell ▪ Cdr. Tom Lee, USN ▪ Duane Mallicoat*

A question that faces every DoD program manager is how to get more bang for the buck. Is opportunity management a tool that can be applied with a return on investment? Before we get to the question of adding opportunity management to a program's acquisition strategy, let's start with what opportunity management is and what it is not. Then we'll go on to discuss the potential benefits of the concept; how the process might be tied to a program's risk management effort; and how the process might be leveraged as part of an aggressive acquisition strategy to possibly buy back program cost, schedule, and performance.

First, what does "opportunity management" mean, and is it in any way tied to program risk? As we all know, risk management has been an established practice for years in DoD and industry. Regardless of which model of risk management you subscribe to, they all fundamentally focus on risk identification; analysis of expected impacts; likelihood of occurrence; decisions on methods for responding/handling the risk; and monitoring and controlling risk over a project or program life cycle. In application, the objective of risk management has been to decrease the probability and impacts to program outcomes: cost, schedule, and technical performance. The emphasis is on the probability of something occurring that will have a negative impact on program outcomes.

What if this were only a portion of the story when it came to risk? What if there were things that, if known, could increase our probability of success? In fact, such things *do* exist—they're called "opportunities." More important, these opportunities—if understood and managed within the context of your overall risk management program—could improve the likelihood of achieving program goals, through more effective trade-offs of cost, schedule, and technical performance. To appreciate the potential benefit, we need to come to a common understanding of how risk and opportunities complement each other under the overall umbrella of risk management.

> **Adopting a uniform approach to measuring both opportunity and risks associated with any program opens the door for easily identifiable trade-offs within each.**
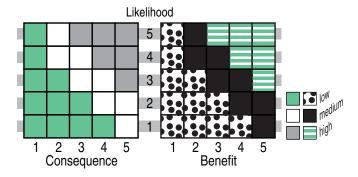
## Two Kinds of Risks

The Project Management Institute, founded in 1969, is the largest global professional association for project management. Their *Guide to the Project Management Body of Knowledge* (*PMBOK®*) is developed with contributions from every major business sector, including the defense industry. One of the nine knowledge areas of the guide is risk management, which consists of six primary processes: risk management planning, risk identification, qualitative risk analysis, quantitative risk analysis, risk response planning, and risk monitoring and control. These processes can be aligned to other risk management models including the *Risk Mangement Guide for DoD Acquisition*. The *PMBOK* departs, however, when it proposes that both negative risks or threats (the ones whose likelihood and impact we seek to *de*crease) and positive risks or opportunities (ones whose likelihood and benefits we actually seek to *in*crease) will exist on every project or pro-

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## Risk and Opportunity



Likelihood / Consequence / Benefit chart with low, medium, high legend

gram. Both types of risk are identified and assessed through the same processes in any model you choose to follow. The differences lie along the path you take when choosing your risk response strategies.

In the typical DoD risk management plan, you will see well-documented risks—clearly written risk statements with root-cause discussions—accompanied by a graphic cube that shows the assessment of likelihood and consequences of the risks, and a series of identified handling steps (most often a mitigation plan). This plan is used often as the daily guide to risk management and touches upon every aspect of the program from technical performance to the budget processes. We have embraced this plan as a tool, and any PM worth his or her salt uses it alongside techniques like Earned Value Management and other plans such as the Systems Engineering Plan to judge the overall health of the program. These risk management plans however focus solely upon dealing with the negative risks or threats the program must face. They don't provide for a systematic approach to dealing directly with the positive risks or opportunities that the program might also encounter and desire to leverage. Just as with negative risks, opportunities can be managed successfully only with dedicated effort on the part of the program.

### Adding Opportunity Management to Your Toolkit

To include opportunity management into the overall program management toolkit, we have to address several fundamental questions. How can we work towards incorporating opportunity management into the overall risk management program? How do we rate an opportunity, and how is it different from rating a risk? What approaches can we take to developing an opportunity-response strategy?

To incorporate opportunity management into overall risk management, you must formalize both risks and opportunities into the same processes of your risk model. You will be looking at those risks that clearly have the potential to positively impact your program, and applying your program's management plan to assess them in terms of

likelihood and impacts. In the case of opportunities, you will need to adopt additional definitions to describe both of these assessments.

Negative risks are rated in terms of their likelihood of occurring and the consequences. Opportunities are rated in terms of likelihood and—in contrast—benefits. Both are typically displayed on a three-color cube consisting of a 5x5 Likert-scale matrix. In the graphic to the left, you see a comparison of the two—negative risk on the left and opportunity on the right. Both require definitions of what the various ratings equate to and what each color in the scheme signifies. Cost, schedule, or technical performance are still the key tie-ins for assessing the impact of an opportunity; however, the larger the scale step (5 vs. 1), the greater the value/benefit to the program if it is achieved. Lastly, the three areas of the matrix for risk correspond to low, medium, and high risk to the program; a combination of likelihood and consequence ratings. In contrast, the three areas of the matrix for opportunity have different color schemes and meanings based upon their ratings for likelihood and benefit: low)—minimal benefit with minimum oversight to achieve; medium—limited benefit, requires low to moderate attention of management; high—major benefit to program, requires significant management attention.

According to the *PMBOK*, the strategy best suited to handle a negative risk can fall into one of four basic categories: avoid it, transfer it, mitigate it, or accept it. When you consider the approaches to take in handling an opportunity, you have a different set of strategies: exploit it, share it, enhance it, or accept it. The last strategy is the same as that of a negative risk, so let's look more closely at the first three.

### Exploit It
The strategy of exploitation is pursued if the program wishes to ensure that the opportunity is realized. By seeking to eliminate the uncertainty associated with the opportunity, the program seeks to ensure that the opportunity occurs. An example cited in the *PMBOK* is to assign more talented resources to the program to reduce the time to complete activities or to provide better quality than originally planned. In such cases, the program office has the ability to show how, with proper management involvement, there is a significant likelihood of achieving a return on investment.

### Share It
The strategy of sharing requires shifting the ownership of the opportunity to another element of the organization or perhaps to an external resource (the contractor, for example). The rationale is that the other party is better suited to reap the benefit of achieving the opportunity than the program itself. An example would be to have the government take responsibility for conducting a test

since it has a world-class facility that the contractor could also access, but at a much greater cost to the program.

## Enhance It

Enhancement, in the *PMBOK* description, is modifying the "size" of an opportunity by increasing its probability and/or positive impacts and by identifying and maximizing key drivers of these positive-impact risks. In comparison, it is the polar opposite of the negative risk management-handling strategy of "mitigation."

## Opportunity Knocks

Opportunities exist in nearly every program; however, they are rarely thought of as an overall part of actively managing our systems development or sustainment processes. Frequently, opportunities fall unexpectedly into our laps from such sources as our prime contractor or a field-activity support organization. Even if we're made aware of opportunities, we too often don't afford them adequate management attention, since we don't examine them for benefits or understand the actions necessary to improve their likelihood.

A large program involved in a systems development and demonstration phase will normally have hundreds of identified and monitored risks that are being actively worked. There are also a significant number of known and yet-to-be-discovered opportunities that could be exploited.

Consider a tactical aircraft that is equipped with numerous systems to provide data and voice communications. Decisions are made every day about requirements, functionality, and design. The systems engineer and director of logistics of the aircraft program integrated (government and contractor) project team engage their team members to actively seek ways to reduce overall aircraft weight, decrease aircrew workload, and decrease life-cycle costs, along with other initiatives. The IPT takes this guidance and in parallel with its design activities, identifies specific opportunities that can be assessed for their potential benefits to the program. Further discussion can identify the best strategy for obtaining the potentially positive impacts, and the cost associated with carrying out the appropriate strategy (exploiting, sharing, or enhancing). A digital radio system is analyzed and selected, based upon its potential to reduce by up to 15 percent the overall life-cycle cost to the user in the areas of maintenance-personnel hours and reliability.

An opportunity may also provide a benefit that could reduce the impact of another programmatic risk. Here's one very generic example: You're the director of logistics on a major aircraft acquisition. Test and evaluation has shown that in the desired configuration, the center of gravity is so far aft that nose wheel steering becomes a problem. Risk identified. Simultaneously, the customer has identified that the cockpit deck and sides are insuf-

ficiently armored to risk going into a small arms environment. Your analysis shows that there is a commercial off-the-shelf armor system available for the cockpit, which, when added to the weight (up forward), would negate the center of gravity problem without any appreciable loss in performance. You've just performed a simultaneous opportunity management (identifying a positive program impact), which minimized a risk (negative impact to program). This is simplistic but readily shows how the process can be applied across the board. Whether it is a cost-to-funding tradeoff or the decision to make or buy an assembly, the basic tenets are there. Adopting a uniform approach to measuring both opportunity and risks associated with any program opens the door for easily identifiable tradeoffs within each.

So let's come back to the original questions. Should I as a program manager look to incorporate opportunity management into my program's acquisition strategy? Can the process provide a return on investment, thereby allowing me to get the best bang for the buck on my program? We would suggest yes.

Can it be merged with my current risk management program to minimize manpower and resource outlay? Again, the answer is yes.

Are there experts in industry and within current DoD programs who are using the process effectively? Yes, there are efforts currently under way from both sides of the acquisition team using some form of opportunity management process and using it quite effectively.

Can the opportunity management process be used as a potential tool to allow the program IPTs to buy back program cost, schedule, and performance by capitalizing on the opportunities that are present in DoD programs? Yes it can.

So what do you do if you want to follow the path of opportunity management? Is there a guidebook? Is there a list of best practices? Could this become a joint program with the DoD Risk Program? Good questions and ones that every PM needs answered to have a level of comfort before proceeding with the process. Now that we've given you the "what," in the next issue of *Defense AT&L*, we will focus on these and other, related questions to give you the "how."

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# Proactively Managing Risk

## The New "Waste"

*Steve Hoeft ▪ Melinda Davey ▪ Dean Newsome*

An unforeseen risk causes a problem to hit you out of the blue. Someone is assigned to get to the bottom of the problem and solve it—quickly! Everyone looks for what, or who, is to blame for the latest predicament. You're in firefighting mode.

There are many ways to become aware of risks and their causes. Waiting until a problem arises is a very reactive solution. The better way is to take a more proactive approach.

A continuous process improvement (CPI) tool called value stream mapping (VSM) has been used effectively over the last decade to help organizations visualize their key processes so as to expose problems of waste and to plan improvements. The CPI approach follows through on those improvement efforts and repeats the process for still greater gains. Traditional CPI is focused on removing waste or non-value-added steps. But with just one more pass added to the standard CPI methodology, VSM can be used to also identify and reduce risks in all key processes. This combination of VSM enables organizations to leverage the continuous improvement initiatives that are likely already part of their ongoing transformation effort.

## Risks as Threats

We are all exposed to risks daily—at work and in our private lives—and often manage them without even thinking about it. Organizations are challenged to maintain operations during disruptions and to avoid operational failures. Whether by natural disaster, terrorist action, or simple employee mistakes, organizations need to identify risks and mitigate losses. We need to ensure that we think about risk actively *and* proactively in the way we deliver value to customers.

Risks can be opportunities as well as threats, but this article will focus mainly on risks as threats. Risk management means developing and deploying a systematic cor-

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Risks can take various forms: financial risks, risks to the public or key stakeholders, risks to project success, risks to the products or services, risks from missed opportunities, policy failures, and even risks to reputation. Risks can affect an organization's performance, stakeholders, customers, and future livelihood. A clear understanding and plan are needed for managing risks. Done properly, a plan for mitigating risk can be integrated into existing strategic plans to meet key objectives, targets, and the demands of good corporate governance.

Good risk management reinforces the value of appropriate risk taking. It can also encourage innovation through promoting a no-blame culture. Risk management must not be seen as something in addition to effective operations; it must be part of what an organization does every day to be successful. Having a risk management process in place is critical for business success.

## Risk: A New Form of Waste

Many firms have started implementing CPI principles in their many forms (Lean, Six Sigma, Theory of Constraints,

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## Continuum of Reactive vs. Proactive Risk-Management Methods

| Hit by problem; react | Make plans based on prior experience of bad risks | Brainstorm on occasion; make plans to prevent future risks | Leaders identify Value Streams and reduce risk (as part of larger CPI effort) |
|---|---|---|---|

Reactive ← - - - - - - - - - - - - - - - - → Proactive

etc.). The key principle in CPI, as outlined in many works on the Toyota Production System, is the constant elimination of wastes, which are non-value-added steps, tasks, or work. If risks are considered by all practitioners as another form of waste, risk analysis and mitigation can easily leverage the current CPI methodology (sequence of activities to improve processes). The seven wastes, first detailed by Toyota Production System developer Taiichi Ohno in the 1950s, are as follows:

- **Overproduction**—Producing more material than is needed before it is needed
- **Inventories**—Material sits taking up space, costing money, and potentially being damaged; problems are not visible
- **Waiting**—Material, people, or assets are waiting; value is not flowing to customers
- **Defects**—Defects impede flow and lead to wasteful rework, handling, and effort
- **Motion**—Any (human) motion that does not add value is waste
- **Transportation**—Any (product) movement that does not add value is waste
- **Overprocessing**—Extra processing not essential from the customer point of view.

To these, we add risk as the eighth waste:

- **Risk**—Any risk or cause of risk in a key process that is not identified, assessed, and mitigated is waste.

We think of risk as a waste because when an uncertain risk becomes a reality, the effort expended to address the problem is above and beyond what should have been expended—and that is waste.

### Reactive versus Proactive Risk Management

A key to successful risk management is a method by which risks are identified and mitigated continually in an organization. Ideally, organizations should want a method that can identify the risk in advance of experiencing the failure. As we stated earlier, there are many ways to become aware of risks and their causes in an organization. The figure shows a continuum of reactive versus proactive methods, from getting hit by a problem and reacting, to leaders identifying key Value Streams and reducing risk as part of their larger transformation efforts.

The method described on the far left of the continuum is not really risk management, and some organizations re-

main there, at least until major risks affect them. Firms often move their risk management efforts to the right on the continuum over time, based on the impact of the risk events they are experiencing. Unfortunately, it sometimes takes significant impact, like legal action or oversight body intervention, to move some organizations to a proactive position. The closer a firm is to the left side of the scale and the more it resists movement to the right, the greater the likelihood that a public-, investor-, media-, or regulator-driven crisis will threaten its existence.

### A Risk Management Framework

A risk management framework, which incorporates the DoD's five-step risk management process, is the basis for the methodology. The five steps are identify risks; assess risks; develop mitigation control options and choose the best ones; implement mitigation controls; supervise and evaluate.

The first four steps are sequential and repeated as new, discrete risks are identified. The supervise and evaluate step runs concurrently with the other four steps. Within the supervise step, the organization involves internal and external stakeholders, plans for risk management, and tracks risk and mitigation activities. In the methodology, risk mitigation is partitioned into two separate steps: one to develop risk mitigation options and make decisions, and the other is to implement the selected options. The model was developed by NewVectors LLC in a project called Material Security in the DoD Disposal System, conducted for the Defense Sustainment Consortium with funding from the Defense Logistics Agency. The prime contractor was The Advanced Technology Institute.

### Using VSM to Identify More Risks

For process risks, a CPI planning tool called value stream mapping can be used by teams to effectively visualize and improve their key processes, as well as to identify and reduce risks in those processes. A typical value stream mapping session will detail both the material flow (product, paper, or even a service) and information flow (rules, plans, or directions for who does what and when) that make up the process. This is sometimes called the "current-state map" or "as-is" map. After the map is developed and verified, the team can make a second pass to highlight risks and causes of risk in and between each process or information step. After a brief discussion of the high-level risks for the organization (be they financial, safety, or other—and they will be different for each organization and business unit), the facilitator could ask the team some key questions to uncover causes of risk in each key process:

- What could happen in and between these steps to cause one of the high-level risks?
- What could happen in the process that we might not catch internally?

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- What could be missing or wrong in the information flow to cause one of the high-level risks?

Some possible causes of risks are entry errors, inadequate equipment to perform a task, and even language barriers.

Value stream mapping is a form of process mapping that also includes the total accumulated time (both value and non-value added) at the bottom of the map. It is time-scaled. The team mapped in detail the demilitarization (demil) and mutilation as a condition-of-sale process. This is one of the key processes for the Defense Logistics Agency's Defense Reutilization Marketing Service (DRMS), which sells scrap material, requiring it to be demilitarized or mutilated after the property is sold. After doing the traditional value stream mapping, the team made a second pass over the process, identifying potential causes of risks. These risks were documented on the map using different colored 3M Post-it® Notes. A Post-it Note representing each process step in the value stream map was placed in its own functional "swim lane" or row across a multi-rowed roll of paper. The team collected some key data about each process, including total process cycle, "touch" time, paper/information flows, and causes of risk.

Initial results for DRMS, after just a few weeks of implementing its risk control plan for the demil process, showed a 25 percent reduction in overall risk score (a product of the likelihood of each identified event, multiplied by the

impact if it were to occur, normalized by the team on a 1-to-10 scale). Significant improvements were also made to the process to help prevent improper releases of materials and reduce information errors.

The biggest benefit to using VSM to identify risk is that CPI tools are likely already used in organizations today. As organizations adopt Lean or other CPI methodologies, they should consider using VSM as a strategic planning tool to integrate, highlight, and prioritize opportunities for waste, risk, and complexity reduction. A key part of developing a company's risk management strategy and plans (step 5 in the DoD framework) is to set clear guidelines for continued risk management in all key processes. Using best CPI practices, the leaders of each value stream should create a new "vision" every 12 months or so to further improve the process. Because they are combined, risk analyses will be repeated in this same timeframe and implemented with improvements in flow, waste, and variation. Instead of making a supply chain more brittle (e.g., by removing inventory and going faster), this new process would reduce risk by addressing the causes alongside removing waste from a process.

Safety is a type of risk that is well suited to this approach. It is possible to get improvements in safety as Lean and CPI implementation ensue, but often the reverse is true in companies today. In an article circulated by Toyota Motor Manufacturing, Kentucky, Taiichi Ohno said, "Safety is always our first and foremost concern, and there can be no man-hour reduction activity without consideration for safety." He also warned that "there are times when improvement activities do not proceed in the name of safety." As flow and efficiency improvements are made, people go faster. This can cause injuries. If the CPI team makes risk a part of their value stream mapping while elevating safety to a high-level risk, they will proceed with actions that must also improve safety.

## Summing up the CPI with Risk Management Process

The team added more elements to the standard DoD 5-step risk management framework to reduce and manage risks even further. This allowed the team to focus on the actual risk-reduction activities as risks were identified. The following list highlights some key steps to reduce risk within the framework of a larger CPI effort. The second-level items show the added elements in the typical VSM methodology that identify and reduce risks:
- Identify key process to improve (core processes that add value for your organization)
- Create a team tasked to continue working until the goals are met
- Create a Current State Value Stream Map; validate

# Top Ten PBL Lessons Learned

*Ron Klein* ▪ *Tim Stone* ▪ *Mike Murphy*

Performance-based logistics is a powerful tool to assist Defense Department logisticians in improving support activities. The preponderance of the weapon systems costs and—more important— the effectiveness of the warfighter are influenced more by logistics support than any other single factor. PBL has great potential, whether it is used to design new logistics support processes or to improve existing ones. As PBL initiatives become mainstream, it is appropriate to review the record and identify lessons learned. It is not our intent to exclude other lessons learned from this particular top-ten list; nor are the points listed in any priority order.

## 1. PBL is first and foremost a logistics study.

Costs are always relevant and need to be included in the business case analyses (BCAs). However, PBL is not a cost analysis by another name. If the question is, "What is the most cost effective means to perform a function?" (e.g., overhaul transmissions), then a cost analysis is the appropriate tool. If the question is, "How can we provide overhauled transmissions to maintenance soldiers in the manner that best meets their needs?" then logisticians are the best-qualified to answer. PBL is about how to improve logistics operations. Financial calculations alone will not provide the optimal solution.

While there is no standard BCA format, our experience demonstrates that the logistics or operational section should account for approximately 65 percent of the research and documentation, as well as the relative weighting considered in the recommendations. Risks should generally account for around 10 percent, and cost should be in the range of 25 percent of the study.

## 2. While the BCA sequence of events is standard, the effort varies greatly.

A good BCA is paramount. This is where the analysis is documented. Without a BCA, no one will be able to determine whether the PBL arrangement met the desired objectives. The sequence of events for the analyses and format of the BCA are now reasonably standardized (at least as much as they should be). However, the size of the BCA should vary, depending on the logistics function being assessed. For small processes that have an important but narrow impact and may result in moderate cost savings, a BCA might cost $8,000 and take three weeks to complete. At the other end of the spectrum, if one is evaluating the optimal means to provide all logistics support to a new, complex weapon system, it might cost $800,000 and take two years to complete the BCA.

Consider the cost of aircraft turbine engines at $750,000 each. If supply chain management practices can be implemented resulting in the Service's having to own 100 fewer engines, the inventory savings will be $75 million. This isn't to suggest that saving money is the primary objective, but that the resources expended should be commensurate with the potential improvement.
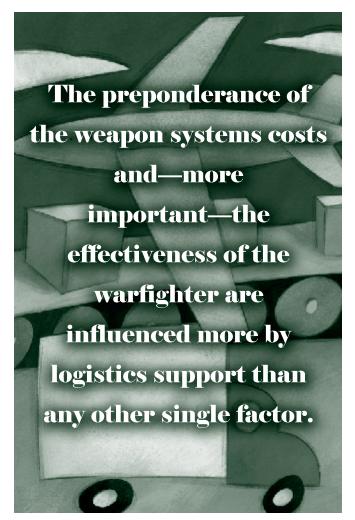
## 3. Don't turn over the leadership of the PBL or the BCA to outside consultants.

When the consultants are gone, the requirement to implement the recommendations will be with the government logisticians who have responsibility for the activity—and no one knows the needs and the constraints better than the long-time government logisticians. The likelihood of success increases dramatically if those who will be implementing the changes are the ones who developed the solution.

We don't mean to suggest that PBL consultants can't provide vital services. They can be especially valuable in structuring a plan; incorporating lessons learned; assisting in the difficult tasks of documenting best DoD and industry practices; providing precedents for desired policy waivers; developing complex funding and contractual means; organizing; facilitating brainstorming sessions; and providing other valuable assistance. But the consultants should be just that—consultants to government managers who have the authority and responsibility to provide the optimal logistics support to warfighters at reasonable costs.

## 4. Funding alternatives need to be understood and fully explained.

Funding is an aspect of DoD operations that presents challenges greater than those encountered in similar commercial process-improvement efforts. For example, a program office deals primarily with Army procurement funds. The limited Operations and Maintenance, Army (OMA) funds available are probably used for salaries. The Integrated Material Management Center manages the Army Working Capital Fund (AWCF). The Defense Logistics Agency and/or U.S. Transportation Command may have

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funding to perform aspects of the logistics support being evaluated.

These various types of funds (often referred to as "color of money") present three challenges. One is that an agency is currently receiving these funds or, in the case of planned new systems, will receive them. Negotiations are difficult when requesting a portion of the funding in exchange for that agency's not having to perform the function. A second problem is that these funds have different restrictions with respect to use and expiration limits. Rarely can the funds be comingled. A third challenge is that study participants have a tendency to overlook the significant savings that may accrue to an agency other than their own.

An error on some PBL initiatives has been the assumption of constant funding. Contracts have been issued that had to be modified because of funding decrements. PBL plans (whether contracts with commercial firms or performance-based agreements with government agencies) are still subject to the authority of congressional funding and DoD allocations. The best advice on these issues is simply to plan accordingly. It does little good to develop a solution that can't be implemented because funding

wasn't fully considered. Ensure that your PBL team includes someone knowledgeable in DoD funding and that this matter is fully addressed in the BCA.

## 5. Assembling an engaged Advisory Board is crucial to the success of large PBL studies.

If it is anticipated that implemented recommendations may disrupt existing practices, roles, funding, and/or personnel authorizations, then it is essential that a participatory advisory board be with the process from the beginning. The advisory board should be convened at least four times. First, the board should be briefed on the initial PBL plans, including the study scope, traditional difficulties, assumptions, alternatives, methodology, and preliminary evaluation factors. After the initial research phase, the advisory board should be presented with the findings and their impact on the planned BCA (e.g., the rationale for eliminating one of the alternatives). It is critical that the board agree with the planned BCA methodology before the resource-intensive data collection begins. This avoids the error of developing a recommendation and only then addressing objections to what should or should not have been included in the analyses. When the preliminary findings are known, the advisory board should again be briefed. If the recommendation is expected to be controversial, the advisory board members can begin to assemble plans to seek concurrence from other affected senior leaders. Finally, the advisory board should receive a briefing explaining in detail the BCA findings and recommendations.

## 6. New systems have more potential than fielded ones.

Nearly all DoD logisticians are familiar with the charts showing that the greatest costs of a weapon system are in the sustainment and that these sustainment costs are largely determined during the design phase. Consequently, the greatest opportunity to affect logistics support is during system design. The second window of opportunity is prior to initial fielding. It is during this period that logistics support functions such as overhaul and repair, training, publications, supply chain management, support equipment, and software support are planned. The absence of an existing logistics support process at this point results in four important opportunities: the ability to take a comprehensive look at the entire logistics support rather than a segmented one; a time when logisticians can step back and ask what the optimal support means could be; less resistance from existing workers who may be threatened by a loss of funding, jobs, or status; and little or no abandonment of existing fixed costs to perform the activity.

Once a system is fielded, the opportunities to implement substantial changes may be limited to reliability or cost-driven improvements. Developing an entirely new system to collect and distribute technical data or combining

the overhaul, repair, and movement of a component with tracing and tracking information to the soldier are very difficult at this stage, primarily because too much existing infrastructure would be adversely affected by such a change. This is not to suggest that PBL endeavors shouldn't be pursued for fielded systems—simply that the opportunities are generally more targeted. Even small PBL efforts can add great value to legacy programs by attacking the underlying causes of shortfalls in warfighter readiness.

## 7. Study participants typically know much more about government practices than commercial ones.

Government logistics practices have been in place for decades, and government logisticians have thoroughly learned them. Conversely, commercial practices have evolved, sometimes in dramatic ways. Wal-Mart's extraordinary supply chain management practices have given it an incomparable competitive advantage. FedEx, UPS, and DHL, through expedited shipping, have enabled firms not only to reduce their expensive inventories, but also to rid themselves of the whiplash effect that results in stock-outs and high inventory levels. Amazon.com provides buyers with immediate acknowledgement of the order and, within minutes, provides tracing and tracking information. Defense Logistics Agency personnel can explain why the procurement lead time is 88 days, but the real question is how Boeing and Caterpillar perform this same function in minutes? The lack of employee movement between commercial firms and DoD results in few government logisticians being familiar with current commercial logistics practices. The result is a combination of relying on outside consultants for this expertise and spending more time attending commercially oriented symposia and conferences.

## 8. Alternatives and the study methodology will often change as a consequence of initial research.

A key early step is to have the team identify the traditional difficulties, scope, assumptions, alternatives, study methodology, evaluation factors, and preliminary performance metrics. However, one should expect that initial research will alter some of these. It may be that research into the best commercial inventory management practices reveals that one of the alternatives needs to be changed or even eliminated. One may learn about best DoD or commercial practices that result in another alternative's being identified. It's not uncommon to discover that the planned method of collecting and evaluating as-is costs against the to-be costs of the alternatives won't work, primarily because the data don't exist or aren't accessible. Information that alters the BCA plan is the point of the initial research phase. Team members, as well as the leaders, should not only anticipate such changes but welcome them.

## 9. Collecting and documenting costs will likely be more difficult than expected.

While the BCA is not primarily a cost analysis, this does not mean costs are irrelevant. A complete study will compare all the major features of each alternative to include the cost of each. Except for the most narrowly defined functions, that's easier said than done. In DoD, different organizations are responsible for buying the major components, repairs, stocking the items, overhauls, and transportation. Furthermore, the cost-accounting detail does not exist to provide the necessary data. Consequently, ascertaining the government as-is cost of managing, for example, the T56-A-14 engine is more difficult than determining the comparable support costs of the commercial PT6A-67D engine. When comparing alternatives, sunk costs are often a point of disagreement. One should ensure that the study methodology addresses which costs are included.

These difficulties are often mitigated, in part, by greater latitude in determining an acceptable margin of error in the cost estimates. As an example, if overhaul and repair labor hourly costs account for less than 30 percent of the total costs and less than 10 percent of the total weighting of evaluation factors, then the analysts should avoid spending a disproportionate amount of time and effort to determine a cost estimate with a $\pm$ 90 percent confidence. Of course, these cost collection tradeoffs must be coordinated with the agency validating the cost portion of the BCA.

## 10. Change is hard.

Change is difficult in even the most dynamic and innovative large organizations. In his book *Mastering the Dynamics of Innovation*, James Utterback describes the resistance organizations encounter in abandoning established infrastructure. In addition to the business concerns, there are personal obstacles. If established processes are discarded and replaced with new ones, the value of individuals' expertise is diminished. Acknowledging that there's a better way to perform the function suggests that those performing the activity are not creative or effective.

The challenges in implementing substantial change in the government are even greater. In addition to the hurdles faced by commercial firms, government agencies generally lack the imperative to engage in protracted, difficult change endeavors. Neither competitive pressures nor elected leaders provide the external driving force. The time horizon for major change is often beyond the term of either the manager or his/her supervisor. Because responsibilities for functions are divided, individuals seek the best solution for their own areas rather than the enterprise as a whole. A common theme is protection of the institution. While there are some change-management and analytical techniques that are useful, the overall lesson learned is that substantial change does not occur

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without the active and consistent participation of a strong leader.

## Adding it Up

PBL is a powerful tool that is welcomed by logisticians who want to improve the support provided to soldiers and, at the same time, serve the interests of taxpayers. Those who want to make a real difference are vigorous advocates; however, once engaged in PBL, one is reminded that even though the new tempered steel plow is much better than the old iron one, the ground remains hard and rocky.

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- ▲ 2nd Pass: Additional Risk process steps: Discuss the high-level risks for the organization (e.g., financial, safety, other)
- ▲ Assess risks
- ▲ Propose and evaluate mitigation options
- ▲ Select mitigation options
- ■ Create a Future State Map; a 12-month-ahead vision for what the process should be
- ■ Create action plans; integrate and prioritize risk-reduction items with other improvements
- ■ Implement action plans
- ■ Track improvements
- ■ Repeat—schedule another analysis of this key process in 12 months, and spread the combined CPI/risk-management methodology throughout the organization.

## Why Combine Risk Management and CPI?

There is synergy in combining risk management with CPI. There are also several similarities between risk management and CPI process steps that are worth noting; some of them are:
- ■ Need for reflection or capturing lessons learned
- ■ (Always) involving teams of subject matter experts
- ■ Just-in-time training for the people implementing the changes
- ■ Communication in many forms
- ■ Good governance at the leadership level
- ■ Great follow-through.

According to John Maxwell in his book *The 21 Irrefutable Laws of Leadership*, "everything rises and falls on leadership." This applies to risk management and CPI. As improvement efforts mature, workers see that the documented improvement philosophy does not change with new leaders and that this methodology is becoming part of the way people think and work every day.

Norman Vincent Peale said, "How you think about a problem is more important than the problem itself." Does your organization have a systematic process for improving processes (e.g., CPI)? Do your people all know and use that methodology? Where is your organization along the continuum of reactive to proactive in addressing risk? Does your organization see risk as another form of waste? And, one last question: Wouldn't it be nice if the CPI methodology used daily also reduced risk as well? This is the goal of combining risk management with CPI.

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# Only You
# Can Prevent Office Meltdowns

*Wayne Turk*

You have a new assignment. You are now the project manager taking over an ongoing project. It seems to be on track. All is peace and harmony—not! It's on track, but it only takes a few days to learn that there is conflict between two team members on the same task, there have been differences of opinion with quality assurance personnel over processes, and your deputy is fighting with the contracting officer. You have to resolve the issues, or you and the project are in deep trouble. What can you do to bring these conflicts (and any others that you haven't found out about yet) to a reasonable resolution? And how can you do it so it's beneficial to everyone involved? All is not lost. There is a way—more than one, in fact.

Your goal has to be to increase the benefits achieved from managing and encouraging beneficial conflict—like task and process conflict—while at the same time managing, resolving, and reducing the negative effects of relationship conflict. You can do it, and you have to. Because if you don't, you are in for a long (or maybe short), bumpy ride with the project.

Before getting into the how of resolving conflicts, we need to look at some definitions and theory. Then we can get into the practical guidance. Don't skip directly to "The Practical Stuff" later on. Humor me and read the definitions and theory first. They will help.

## Defining the Terms

What is conflict? My favorite definition is when two or more people perceive that they have incompatible or opposing ideas, interests, needs, or external or internal demands. The *New Grolier Webster Dictionary of the English Language* defines conflict as "sharp disagreement or opposition of interests or ideas." However you express it, it comes down to "what I want doesn't match what you want." When conflict occurs on the project team or between the team and outsiders, it can reduce morale, lower productivity, increase absenteeism, and cause small- or large-scale confrontations that can even lead to seri-

> The best idea is to prevent conflicts or nip them in the bud. Good communications skills and practices can prevent many conflicts.

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ous and violent crimes. We'll assume that things aren't bad enough to lead to someone's going over the top, but it could be bad enough to knock the project off track.

What is conflict resolution? It is a process of working through opposing views in order to reach a common goal or mutual purpose. That's part of your job as the PM. It's estimated that managers spend at least 25 percent of their time resolving workplace conflicts—with obvious impact on personal and organizational productivity.

### Three Types of Conflict

Look at the three conflicts recently uncovered in your new project. Kelly Graves, writing on "Managing Workplace Conflict" on the Project Mechanics Web site, describes three types of conflict—task, process, and relationship—that seem to fit your situation. The conflict between two team members may be a **task conflict**. According to Graves, task conflict arises among members of teams and affects the goals and tasks they are striving to achieve. It can be based on differences in vision, intention, or quality expectations. Personal relationships may survive task conflict, but a project may not. It is essential to channel any task conflicts so that the differences become collaborative and lead to improvements in the way the team thinks about and goes about accomplishing current and

future tasks. As the PM, it is your job to guide any conflict into a direction that will help rather than hurt the project, if at all possible. Not necessarily an easy task, since each conflict is different. Converting conflict to friendly competition might be one way, or taking the best from both sides might be another.

Then there is **process conflict**, which centers around the procedures, steps, or methods used to reach a goal. One person might like to plan many steps ahead while another might like to dive in headfirst. These differences in approach or process can lead to communication breakdowns and, ultimately, conflict. But like task conflict, process conflict can be useful if managed correctly. Healthy differences in approaches to process will often lead to improved ways of doing the job. Processes are great, but they can almost always be improved ("The Process Trap," *Defense AT&L,* May – June 2006),

**Relationship conflicts** occur directly between people and may be over roles, styles, resources, or even personalities. Graves says that relationship conflicts can undermine and tear at the fabric of a team's ability to achieve goals efficiently and effectively. Relationship conflict can penetrate and damage all aspects of an organization. When people don't communicate effectively, teams, projects, or even an entire organization will suffer. Relationship conflict can quickly demand all the attention and energy of the manager, leaving too little time to accomplish necessary tasks, and hurting the project.

### Understanding the Theory

According to Julie Gatlin, Allen Wysocki, and Karl Kepne in "Understanding Conflict in the Workplace" (University of Florida, Institute of Food and Agriculture Sciences Web site), there are eight common causes of conflict:

- Conflicting Needs—Whenever people compete for scarce resources, recognition, and power, there can be conflict. Since everyone needs a share of the resources (e.g., people, space, supplies, funding, or the boss's time) to do their jobs, it is no surprise when those who feel shorted develop conflicts with those they perceive as getting more than their share.
- Conflicting Styles—Individuals have different styles. Everyone should understand his or her own style and learn how to work with others who have different styles. An example of conflicting styles would be one person who thrives in a very structured environment while another works best in an unstructured (possibly even chaotic) environment. Two such people could easily drive each other crazy if they don't learn to accept one another's work style.
- Conflicting Perceptions—Just as people can have conflicting styles, they can also have conflicting perceptions. They may view the same incident in dramatically different ways. Memos, performance reviews, rumors, and hallway comments can be sources for conflicting

perceptions that then become each person's reality. It is the PM's job to make sure that everyone gets the same accurate information, even if it is bad news.

- Conflicting Goals—Problems can occur when people are responsible for different duties in achieving the same goal. Imagine software developers' dilemmas in a situation where they are given conflicting goals by two superiors. The team lead says that rapid development is the top priority, while the test manager says that accuracy and quality are the top priorities.
- Conflicting Pressures—Conflicting pressures can occur when two or more workers or teams are responsible for separate actions with the same deadline. This can be especially true when the same resources are required by each. The extent to which people must depend on each other to complete work can contribute greatly to conflict.
- Conflicting Roles—How many times have you worked for a boss who gave the same task to more than one person? Or gave one person two tasks that were mutually exclusive? The first situation can contribute to a power struggle for resources and may cause intentional or unintentional sabotage behavior. The second may create internal conflict which leads to neither task getting done.
- Different Personal Values—Conflict can be caused by differing personal values. Political, religious, or ethnicity differences can lead to suspicion and conflict. The PM has to ensure that these differences don't affect team members. And they, in turn, need to learn to accept diversity of all kinds in the workplace.
- Unpredictable Policies—Whenever policies are changed, inconsistently applied, or nonexistent, misunderstandings are likely to occur. People have to know and understand rules and policies; they shouldn't have to guess. The absence of clear policies, or policies that are constantly changing, can create an environment of uncertainty and conflict.

## The Practical Stuff: Resolution

Now we're getting to the good stuff: resolution. One method of conflict resolution is collaboration or finding a way to satisfy the concerns of all involved. It is appropriate when both the issues and the relationship are significant, cooperation is important, a positive outcome is necessary, new ideas are needed, and/or there is a reasonable hope that all concerns can be addressed. The use of collaboration is inappropriate when time is of the essence, issues are unimportant, goals of the other party are wrong or illegal, and/or enforcement of a precedent is necessary.

Compromise also constitutes a method of resolution. You are seeking the middle ground that partially satisfies all involved. It is said that in a good compromise, everyone goes away both happy and disappointed. Its use is appropriate when cooperation is important, but time/re-sources are limited, or finding an outcome—even one that is less than the best—is better than being without any solution. It is not the right way to go when a creative solution is essential or there are other constraints, such as time or technical capabilities.

First off, you are the PM. That means that you're the boss and can force a resolution to any conflict within your team. Of course, doing that may come back to bite you later. It may create conflicts between you and your people or cause the loss of team members. There will be times when you have no choice, and it's the only solution. Don't be afraid to use your positional authority if necessary.

As the PM—and assuming that you are not a part of the conflict—you can serve as the facilitator and negotiator. If the conflict is serious, talk to the parties involved. Tell them that you want to meet with them. While an ad hoc meeting will work, it is better to lay down ground rules and to have them do a few things to prepare. 1) Tell them to think about what the disagreement is about and write out a few notes briefly presenting their position. You might even set a time limit. 2) Tell them that you will allow them to deal with only one topic at a time. 3) Have them be specific—no generalities. 4) Lay down the law that what is presented will not be personalities, but facts and justifications. 5) Explain that you don't want people to get defensive or emotional (easy to say, hard to do) and that you will end the meeting immediately if that happens.

Bring the parties into a neutral place (e.g., your office—unless you are involved in the conflict—or a conference room). Listen to both sides. You have to remain in control and unemotional, too. Keep them on track and within the rules that you laid out. Then work with them to find a solution. Sometimes it will be easy, but other times it will turn out to be almost impossible. Try to negotiate as much of a win-win solution as possible. Compromises are certainly acceptable. It may be that you agree with one side or the other. Or you may see a third answer. Try to get the issue resolved, no matter what. And remember, you're the boss and your decision is final.

Try to get people to resolve less serious conflicts on their own. Suggest the same type of rules, but otherwise, stay out of it yourself, if you can. If it is a task or process conflict, say that you are looking for a solution that is an improvement. Get them working together on it. If it's a relationship conflict (i.e., personality, style, role, etc.), getting the parties to talk it out may be all that is required. The result may be that they agree to disagree but to work cooperatively together.

The best idea is to prevent conflicts or nip them in the bud. Good communications skills and practices can prevent many conflicts. If they start, try to get them cleared

up before they impact the project. Below are some rules to help you (and your people) avoid or survive the conflicts. They are based on guidelines presented by Mark Sichel in "Workplace Etiquette: How to Avoid Conflict in the Workplace" on the Sideroad Web site. They are aimed at workers but fit a manager in most cases. (As a bonus, they should work in a marriage or personal relationship, too.) So take them to heart.

- Think before you speak. Whenever you have issues in the workplace, you're better off thinking through your words before you voice complaints, thoughts, or suggestions. And bite your tongue before that provocative remark comes out of your mouth and you find yourself embroiled in a fight.
- Sometimes managers, coworkers, or team members need to express their resentment or unhappiness over some action (or nonaction) of yours. You can't argue with feelings, so just listen. Rather than argue or be defensive, let them vent and get it out of their system. Usually the best response is a neutral "I'm sorry you feel that way." Try to put yourself in their shoes and give them the empathy that you would want if it were you.
- Make sure you protect yourself with thorough documentation of any potentially volatile situation. This rule applies to people on both sides of the power structure. A smart employee, like a smart manager, will document issues that relate to self-preservation and job security. This is sometimes known as a CYA or "who shot John?" file.

- Create boundaries and set limits in the workplace. Know how much contact you can take and how much will ignite your internal time bomb. Having created appropriate boundaries, make every effort to be cordial and friendly. Being likeable and popular can only make work life easier.
- When someone has a problem, he or she will often create a scenario that invites your overreaction. Don't do it—overreactions can cause all-out wars. Assess any dispute with a coworker or manager. Is it really worth fighting over?
- Learn to change what you can and accept what you cannot. Don't try to change your co-workers, especially those above you in the hierarchy. It's a cardinal rule that people can change themselves, but no one can change another. You can point things out—unemotionally, factually, and tactfully—and hope that the person changes the questionable behavior.
- Take control of potentially volatile work situations and try to manage them. Strategize and evaluate the personalities, and apply good people-management techniques to the cast of characters.

## It's Not All Bad News

There's good news and bad news about conflict. No one is a stranger to it. We experience it everywhere and in all aspects of our lives. Note that the Chinese character for "conflict" represents two meanings: opportunity and danger. Conflict can serve as a constructive mechanism for change—for example, when people with divergent viewpoints come to a new understanding of each other's perspectives). Conflict offers opportunity—as when it offers new insights about a person or provides the chance to work with new people. Good conflict can foster group unity and improve a respectful sharing of differences. It can lead to improvements in processes or the way you work.

On the other hand, conflict can cause tense relations with someone holding a different opinion. When people are contentious, they try to compete with each other and win at the other's expense. This sets in place a series of moves and countermoves that escalate the conflict and can destroy a project or team.

Conflict on a project is a smoldering fire waiting to destroy people, relationships, and even the product. Don't let it take hold. Act quickly and decisively to resolve the conflict, using it for improvement when you can. Conflict will happen, but don't let it damage your project or your career.

**Good conflict can foster group unity and improve a respectful sharing of differences. It can lead to improvements in processes or the way you work.**

# Developing Future Program Leaders: Part 3

*Timothy S. Kroecker*

In Part 1 of this series, I explained that organizations need to capture the expertise of an aging, highly skilled workforce and to develop the next generation of program leaders. I detailed the importance from both an organizational and employee perspective in terms of increased efficiency and individual engagement; introduced a process to facilitate understanding of the program manager role; and defined competencies, a key to understanding any role as well as any development effort. Part 2 explained the challenges faced when defining program management, as well as the process for creating a complete understanding of the program manager using a "success profile" structure with the required competencies. In this third and final part, I shall explore the alternatives available to create a PM development program.

## Creating a Program Manager Development Program

Once the competencies, success profile, and proficiency levels have been specified for PMs, training programs and experiential assignments need to be created or reviewed against those requirements. The training programs and developmental assignments need to be organized into a long-term developmental process. The overall PM development program should involve multiple assessment opportunities that encourage current and future PMs to stretch their skills and develop themselves beyond the requirements of the current job, project, or program. This encompasses not only those employees most likely to be promoted, but also those who are inclined to work on improving themselves and their overall level of professionalism upon completing the developmental process.

Training programs should be analyzed in terms of the competencies they develop and the depth and breadth of capability participants are expected to have attained by the conclusion of the training. In addition, the training programs should be designed to teach the competencies in the context of the challenges faced by PMs.

Experiential assignments should be designed to encourage the development of the same critical competencies.

> The overall PM development program should involve multiple assessment opportunities that encourage current and future PMs to stretch their skills and develop themselves beyond the requirements of the current job, project, or program.

The experiential assignments can include coaching, mentoring, or special team or project work. Because these assignments are often highly customized for individuals, development objectives should be concrete and explicitly communicated to coaches and mentors as well as to those being coached or mentored. The more specific the development objectives, the more likely that individuals will be able to create development plans linked to achieving them.

Since experiential assignments for the PM roles are likely to be organization- and employee-specific, they can't be examined in a general article; however, I shall discuss several component parts for structured PM training and development programs, including assessment centers;

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blended learning; coaching programs; 360-degree feedback; and online talent development systems.

## Assessment Centers

In this instance, the term "assessment center" refers to a specific approach to evaluate the competencies of PMs, including both technical project management skills and leadership capabilities. The distinctive features of assessment centers include multiple assessment techniques; multiple trained raters; ratings based on observed behavior; assessment of individuals as they interact with others in group exercises; and use of simulations that reflect actual job situations or, in the case of PMs, "multiple days in the life of a large-scale program."

Assessment centers that are designed for development rather than selection emphasize both assessment and long-term development coaching, typically consisting of a one- or two-day process intended for six to 10 participants. The assessment center should assess competencies of both new and experienced PMs. State-of-the-art assessment centers integrate all of these elements using technology to administer and create realistic simulations.

Given that assessment centers are expensive to develop and administer, attendance should be considered a capstone experience for individuals who have first gone through a series of learning experiences. The assessment center should also be one of the individual's last learning exercises centering on the PM competencies before or very shortly after he or she becomes a PM of significant programs.

## Blended Learning

The term "blended learning" is intended to describe a solution that combines several different delivery methods, such as independent study, technology-based simulations, and instructor-led learning. The emphasis is on individual learning rather than assessment, in an event intended for a large group (of, for example, 20 to 30 participants). These events contain case studies that expose the learner to program- and project-management competencies, tools, and techniques. The participants react to real-life program challenges and risks, both individually and as teams. They then share their learning experiences with one another.

There is a range of costs for this approach. They will depend on such variables as the length of the course (ranging, for example, from one hour to several days); the complexity of the simulation (paper-based versus computer-based role-playing simulations); and the degree to which the content needs to reflect the specifics of an organization (a generic case-study versus an organization-based, fully researched case study). However, these costs are to some degree mitigated by the large number of individuals who can receive the training. Because the depth of knowledge being imparted can vary from introductory to advanced, the blended-learning approach can be used several times with different content in a PM development program.

Assessment centers and blended learning provide organizations with the opportunity to assess PM competencies in simulated work situations. These methodologies furnish richer, more contextually based feedback to both the organization and the program participants; they help participants pinpoint their most critical development areas, and they help organizations determine what additional individualized development programs or experiences are most needed—mentoring or assignments to special programs or initiatives, for example.

## Coaching Programs

For the purpose of this article, coaching programs facilitate mutually designed, beneficial relationships between a professional coach and a high-potential new project manager or program manager and the organization. The coaching relationship is created to benefit the employee who is (or is on track to be) accountable for highly complex programs. The focus of the coaching is on organi-

zational performance and individual learning and development, using leadership competencies and project management skills as additional concentrations. The process of coaching involves gathering information on performance from multiple sources to help identify and act on improvement needs, clarifying and objectifying difficult issues, capitalizing on strengths, and providing hands-on advice. For a PM coaching program to be successful, the coaches should be individuals with extensive program management or senior leadership experiences, as they can offer informal career suggestions as well as practices based on personal experience.

Coaching programs have a range of costs, depending on such variables as the use of internal versus external coaches, the number of coaches and participants, and the frequency and length of meetings. This approach is best used for high-potential employees who need specific in-situation feedback, rather than for turning around poor performers.

## 360-Degree Feedback

360-degree feedback is a competency-based assessment method that includes a self-assessment by the project/program manager; and feedback from his/her peers, superiors, subordinates, and—potentially—customers. The results of these confidential surveys are tabulated and shared with the employee, usually in a debriefing session conducted by a more senior manager, coach, or human resources professional, who interprets and discusses the results, trends, and themes in terms of relative strengths and development needs.

360-degree feedback programs are generally cost-efficient development tools. Once the initial assessment instrument has been created (based on the behaviors in the PM competencies), the process can be automated and administered as many times as is appropriate during the long-term developmental process. Costs can be reduced either by using instructor-led sessions to introduce the elements of the feedback to a larger number of participants, or through e-learning tools that cover the same material. This approach can be used effectively for individuals who are interested in developing into PMs or to enhance the competencies of existing PMs.

## Program Manager E-resource Guides

PM e-resource guides are online systems that allow users to view resources (books, articles, Web sites, courses, etc.) related to PM competencies. The individual is assessed against the competencies through a self-diagnosis and/or 360-degree feedback. The e-resource guides help individuals create development plans linked to organizational goals and objectives; provide just-in-time development tools/resources; ensure development resources are available anytime and anywhere; ensure development resources accommodate different learning styles; and en-

able the organization to track each PM's ongoing development efforts.

E-resource guides are cost-efficient development tools. The self-assessment process (using the PM competencies) can be used if the organization does not make use of 360-degree feedback. Quality e-resource guides are frequently updated and customized to address the latest trends in the profession and industry. The resources contained within the system should be varied to address the needs of both novice and more senior PMs, so that once in place, the e-resource guide can be used continuously throughout the PM development process. This approach can be used effectively for all individuals who are interested in developing into PMs or who are interested in enhancing their competencies.

## Providing Feedback to All Participants

The best-designed organization-wide developmental process will achieve optimal impact on the organization's ability to fill program management positions if feedback is provided to all participants *throughout* the process. The type of feedback provided should—and will—vary, depending on how much the individual participates in the developmental process; as the PM progresses, the depth and complexity of the feedback should increase. In addition, time should be allotted to provide one-on-one debriefings and/or career development sessions with those individuals who request them. This is in the best interest of the organization; the sessions can focus PMs on ways to address development issues and raise the overall bench-strength of the organization.

To further ensure viable candidates for future PM position openings, funding should be set aside for the continued development of those candidates who make it to the end of the developmental process, regardless of whether or not they are selected for an open PM position (or in those instances when an opening may not occur for an extended period of time). These individuals possess the drive, ambition, capability, and desire to move up to leadership positions within the organization.

Organizations will face an increase in the number of PM openings as the workforce ages and reaches retirement. Organizations that want to create a viable internal candidate pool to fill PM vacancies should create a long-term PM development program. By creating PM success profiles with competencies, the organization can develop programs to specifically target both individual and organizational strengths and developmental gaps.

The editor welcomes comments and questions and can be contacted at tkroecker@cambriaconsulting.com.

# In the News

## TASK FORCE HELPS REVITALIZE IRAQ'S INDUSTRIES

*Donna Miles*

WASHINGTON—A team of 25 industrial leaders and business analysts is headed to Iraq to join 35 others already there working to get almost 200 idle Iraqi factories up and running.

The industrial revitalization initiative is part of a sweeping plan to get Iraqis back to work, restore their livelihoods, and jump-start Iraq's economic base, Paul Brinkley, deputy under secretary of defense for business transformation, told Pentagon reporters.

Brinkley said the effort has another equally important objective: to ensure that Iraqis don't turn to terrorism simply because they see no other way to feed their families.

Army Lt. Gen. Peter Chiarelli, commander of Multinational Corps Iraq, told reporters in Baghdad last month there's strong evidence that rampant unemployment is fueling the insurgency. He pointed to the example of a former factory worker who had turned to planting improvised explosive devices for the insurgency so he could feed and care for his family.

Reopening industries and improving job satisfaction among Iraqis would go a long way toward neutralizing the forces giving rise to sectarian violence, Chiarelli told reporters.

"Putting young men and middle-aged men to work would have a tremendous impact on this level of violence we're seeing in and around Baghdad and also in the other provinces," he said.

Operating under the auspices of the Task Force for Improved Business and Stability Operations in Iraq, DoD and other U.S. agencies, Iraqi officials, and the corporate world are working to reopen 193 industrial operations once owned by the Iraqi government.

These businesses, which have sat idle since Saddam Hussein's fall in 2003, once employed 10 percent of the Iraqi population, Brinkley said. But their impact on the Iraqi economy was even greater because private-sector companies provided goods and services to the government-run factories. So when the factories closed their doors, the private companies' customer bases dried up, and they too were forced to close.

The U.S. government's economic effort in Iraq initially focused on reconstruction, with an assumption that Iraq's private sector would eventually take over the idle government-owned businesses, Brinkley explained. But that never happened.

So the Task Force for Improved Business and Stability Operations in Iraq, which was working to improve DoD contracting operations in Iraq, shifted its focus in May 2006 to stepping up the process.

"We quickly came to the conclusion that we had a huge, near-idle industrial base that, re-engaged, could put a lot of people back to work and restore normalcy to a sizeable amount of the population," Brinkley said. "So we immediately embarked on turning that industrial base back on."

Initial plans call for opening the first 10 factories quickly, with the estimated $5 million in start-up costs to be paid by the Iraqi government, he said.

Many of those 10 companies, which provide goods and services ranging from building materials to industrial products to clothing and textiles to drugs and medical supplies, are expected to open within the next six months, Brinkley said.

"Our expectation is that every month in 2007, we should be putting thousands of Iraqis back to work across the country," he said. "And if we do that, we will create a whole cascading series of beneficial impacts."

The challenges the task force faces are enough to stump even the most visionary Harvard Business School graduate.

The work involved is a hard, roll-up-your-sleeves effort that requires getting on factory floors with plant managers to determine what's needed to get it restarted, Brinkley said. "What are the constraints? Does it have supply? Does it have customers? Are the customers ready to buy things? If they don't have customers, how can we generate demand for them? Do they have working capital? Are the ministries ready to infuse working capital into the operation? Those are all the things you deal with in business," he explained.

Task force members are rotating into Iraq two weeks out of every month to address these issues and help get the factories running.

"What we are doing is assessing these factories," Brinkley said. "We are bringing in expertise. We are bringing international industry to bear to create demand for these factories."

But Brinkley emphasized that the goal is for the Iraqi government, not the United States, to fund the effort. "We want this to have an Iraqi face. This is Iraq's industry," Brinkley said. "And we want Iraq to be involved in getting it restarted, and they are extremely supportive of this."

Once the factories are opened, Brinkley said the U.S. military will contract with them as much as possible for goods and services supporting U.S. military operations in Iraq. Most of this business, which amounts to about $4 billion a year, currently goes to companies outside Iraq.

This will enable the United States to continue supporting its deployed troops in a way that reduces the logistical burden but also stimulates economic growth in Iraq, he said.

"We've set a collective objective that we would like to see 25 percent of that $4 billion flowing into the Iraqi economy within a year," he said.

As this effort moves forward, Brinkley acknowledged that newly reopened factories have the potential to become terrorist targets. Task force members, however, are optimistic that newly re-employed local workers will help prevent violence that threatens their livelihoods.

Brinkley noted that even in the most violent areas of Iraq, many of the empty factories went untouched by insurgents and looters alike. In some cases, new equipment, computers, and inventory remained in place—a sign, he said, that local leaders protected them against damage or theft because they recognized their value to the community.

"That's a good story because what we think is chaotic is actually controlled," he said. "Somebody has made it clear, 'Don't touch that factory.' That's a good sign. We can get that factory turned back on."

> "Our expectation is that every month in 2007, we should be putting thousands of Iraqis back to work across the country. And if we do that, we will create a whole cascading series of beneficial impacts ... This is Iraq's industry; we want Iraq to be involved in getting it restarted, and they are extremely supportive of this."
>
> —Paul Brinkley
> Deputy Under Secretary of Defense for Business Transformation

This initial effort will have "a huge cascading effect" in Iraq, where a single breadwinner supports 13 other people. By comparison, the average U.S. worker supports four people, he said.

Ultimately, Brinkley said economic progress in Iraq will help drive other forms of progress forward. Reopening factories isn't the full answer, he said, but it is an important part of the overall strategy for success. "It's a piece of the puzzle," he said.

When Iraqis have the opportunity to return to their jobs and provide for their families, no longer will terrorism appear to be their only financial option, he said. When this happens, "an insurgent [will] become a zealot, not just someone trying to make a living," he said.

*Miles writes for American Forces Press Service.*

## AIR FORCE OFFICE OF SCIENTIFIC RESEARCH PUBLIC AFFAIRS (JAN. 5, 2007)
### OFFICIALS OUTLINE BASIC RESEARCH FUNDING PROCESS

*William J. Sharp*

**A**RLINGTON, Va.—Providing U.S. warfighters with a technological edge in battle is a huge responsibility, and the Air Force Office of Scientific Research is actively involved in the process.

Each year, the Air Force Office of Scientific Research program managers evaluate thousands of basic research proposals received from scientists and researchers worldwide.

Each proposal is tied to a request for funding, and researchers are constantly in competition for a portion of $400 million in funding managed by Air Force Office of Scientific Research program managers on behalf of the Air Force and the Air Force Research Laboratory.

"Our program managers consider promising projects taking place throughout American universities, the private sector, federal government, and in some cases, globally," said Dr. Thomas W. Hussey, chief scientist, Air Force Office of Scientific Research.

"With a staff of some 200 people, the Air Force Office of Scientific Research supports more than 5,000 basic research projects worldwide critical to the defense of the United States," he explained.

"Our mission is to create revolutionary technological breakthroughs for the Air Force, armed forces, and the nation," said Dr. Brendan B. Godfrey, director of Air Force Office of Scientific Research.

"We realize our funding decisions affect a great many people from researchers to citizens to warfighters," he noted. "Because of these considerations, we take our work very seriously."

Program managers balance many factors in decision making to include funding available; technological importance, need, and applicability; and risk involved.

Air Force Lt. Col. Rhett W. Jefferies is one of some 40 Air Force Office of Scientific Research program managers. He works in the aerospace, materials, and chemistry sciences directorate. His area of focus is aerodynamics and flow. The directorate is also responsible for research in structural mechanics, materials, chemistry, fluid mechanics, and propulsion. At present, its managers oversee more than 300 research projects. A portfolio of 30-35 funding grants keeps him busy.

"The first step in the funding process is a peer review panel," Jefferies said. "Panelists must be experts in their respective fields and have no conflict of interest in serving on the panel."

Reviews normally involve two internal panelists and one external. Internal panelists are typically Defense Department scientists. External panelists can include experts from NASA, the National Science Foundation, and others. Panel members must be intimately familiar with the research area and able to provide advice and expertise in a broad range of areas.

"Panelists provide feedback on a proposal's technical merit and on opportunities for collaboration, which are both very important in basic research," Jefferies said.

"They also provide advice on funding. The feedback helps guide program managers and principal investigators—those that carry out the research—through the decision-making process."

Prospective grantees are encouraged to submit white papers or otherwise interact with the program manager to determine whether their research concepts are of interest to the Air Force before they go to the trouble of submitting proposals.

Because any research topic could potentially generate hundreds of proposals from interested researchers, panel reviews also help all involved stay focused on the direction of basic research.

"Panel members use a scale we provide to grade technical merit," said Jefferies. "There is a cutoff score involved, and we don't recommend funding for projects that fall below the cutoff."

Annually, program managers review portfolios for planning purposes. Based on the review, decisions can be made to add, modify, or discontinue research programs. Before decisions are made, reviewers typically seek collaboration with members of the scientific community. The needs of the Air Force are always of primary concern.

"About one third of our research portfolios are up for review each year, which helps us keep our workload manageable," Jefferies said. "We spend a lot of time collaborating with colleagues and experts from various scientific communities."

"So, to some degree, some of the risk of initiating new research is managed before we have to make a decision," he emphasized. "Still, recommended decisions rest with program managers.

"So, we are constantly evaluating research in order to make the best possible decisions," Jefferies concluded.

*Sharp is with Air Force Office of Scientific Research Public Affairs.*

## NEW LAND WARRIOR AND MOUNTED WARRIOR SYSTEMS DIGITIZE THE BATTLEFIELD

Program Executive Officer (PEO) Soldier Brig. Gen. Mark Brown believes that "networking the battlefield" by providing infantry soldiers with high-tech tools to plug into the digital battle command network is a critical step toward increasing soldiers' lethality, while reducing the risk of death or injury, fratricide, and surprise enemy attacks.

"If the technology-based systems we've tested over the past few months under combat-like conditions gain Army approval, for the first time in military history our soldiers will be wearing and carrying tools designed to reduce and/or eliminate the 'fog of war' previously considered inevitable in battle," said Brown.

Brown was referring to the comprehensive assessment of the latest Land Warrior and Mounted Warrior systems conducted jointly by PEO Soldier and the U.S. Army Infantry Center from May through August at Fort Lewis, Wash. More than 400 soldiers of the 4th Battalion, 9th Infantry Regiment, 4th Stryker Brigade Combat Team, 2nd Infantry Division participated. The battalion was equipped with 440 Land Warrior Systems and 147 Mounted Warrior Systems. The assessment produced many lessons learned, and feedback from the soldiers has been positive.

Following a limited user test in September, the Army will decide whether to field the systems to troops deployed in Iraq and Afghanistan.

Land Warrior develops integrated protection and networking fighting systems for ground soldiers. It combines computers, lasers, navigation modules, radios, and other technologically advanced equipment to improve soldiers' ability to communicate on the battlefield. It heightens their situational awareness and integrates it with protective technologies to enhance their ability to fight effectively and survive. Mounted Warrior develops the same type systems for combat vehicle crewmen. It includes communications and displays that will improve situational awareness on or off the vehicle.

Col. Richard Hansen, Project Manager Soldier Warrior, explained the reason for the full-scale assessment: "In late 2004, the U.S. Army Infantry Center conducted a side-by-side comparison between Land Warrior-equipped

soldiers and Rapid Fielding Initiative-equipped soldiers at Fort Benning, Ga. This squad-level operational assessment demonstrated that Land Warrior capabilities do improve the combat effectiveness of soldiers and small units engaged in dismounted operations." The result was a battalion-level assessment. Although not all of the results are in, Hansen says they look good.

Infantry close combat is the most demanding battlefield environment with the highest potential for casualties. Land Warrior will help infantry soldiers—who are exposed to the highest risk in close combat—fight effectively and survive by enhancing their ability to communicate on the battlefield and increasing their awareness of the surrounding environment. Land Warrior-equipped soldiers are capable of instant voice and data communications with other soldiers, command posts, and supporting vehicles and aircraft.

"This system is as significant and important as rifled barrels once were over smooth bore barrels. It will change the way we fight," observed Col. Ernest Forrest of the Army's Training and Doctrine Command.

Many of the improvements tested in the assessment were suggested and designed by the soldiers themselves, and they continue to provide expert feedback. The confusion that soldiers commonly experience in battle extends to communicating and receiving orders, as well as tracking the location of other soldiers and the enemy. The Army has made great strides equipping vehicles and command posts with state-of-the-art digital battle command networking capabilities that enhance situational awareness and increase survivability and lethality. The Land Warrior system extends these advantages to infantry soldiers. Precise navigation and real-time, common situational awareness will substantially reduce the risk of fratricide or surprise enemy attacks, according to Land Warrior leadership.

Capt. Patrick Roddy, commander of C Company, 4th Battalion, 9th Infantry Regiment at Fort Lewis explained, "The Land Warrior system provides near-real-time knowledge of where I am and where all my units are. That gives me a better ability to command and control the movement of the unit in the field, prevent fratricide, and determine what force I want to bring to bear on known or suspected enemy locations at a given time."

Using the new systems, mounted soldiers will be able to receive voice, data, and tactical Internet connectivity to communicate effectively with troops on the ground,

The U.S. Navy (USN) Tactical Unmanned Aerial Vehicle (VTUAV) System Fire Scout, makes its first autonomous landing Jan. 17, 2006, aboard the U.S. Navy (USN) Austin Class: Amphibious Transport Dock, *USS Nashville* (LPD 13), while the ship is under way in the Atlantic Ocean. With an on-station endurance of over four hours, the Fire Scout system is capable of continuous operations, providing coverage at 110 nautical miles from the launch site.

DoD photograph by Kurt M. Lengfield

mounted warriors in other vehicles, and unit leaders. For the first time ever, large-scale map displays will show the soldier his or her location, the location of fellow soldiers, vehicle locations, known enemy positions, and up-to-the-minute mission plans and orders. This will allow soldiers to engage targets with minimal exposure, thanks to improvements such as video and thermal sighting routed to a small helmet-mounted display. Leaders will be able to perform faster, more accurate situational assessments, and then transmit simple orders quickly, queuing off the common map situational awareness display to react to changing situations.

Lt. Col. Bill Prior, commander of the 4th Battalion, 9th Infantry Regiment at Fort Lewis, said, "The vertical integration between my Stryker platforms and my dismounted guys now is much better. It's not just a radio or being able to see him—the Land Warrior can see the Strykers on the Land Warrior screen, and the Strykers can see all the Land Warriors through computer screens. So the situational awareness—the ability to pass orders, messages, and that kind of thing—will be a big benefit for us."

## NAVY NEWSSTAND (JAN. 10, 2007)
## ENHANCED FIRE SCOUT MAKES FLIGHT DEBUT

*Sandy Schroeder*

PATUXENT RIVER, Md.—The U.S. Navy's MQ-8B Fire Scout unmanned aerial vehicle (UAV) made its first flight last month at the Webster Field annex of Patuxent River Naval Air Station in St. Inigoes, Md.

The Navy's vertical takeoff and landing tactical UAV (VTUAV) system was originally dubbed the RQ-8A, but during the summer of 2005, was re-designated to the MQ-8B to reflect the Fire Scout's evolution toward an increased, multi-functional role. The test events marked the first flight of the enhanced variant.

During flight testing, three events were conducted and executed as planned. Flight test one was a test of the command for launch abort functionality, calling for the operator to command a launch and immediately command an abort. This test ensured that the control logic would hold the aircraft on deck if it had not yet taken off.

The second flight test was a test of the same system after takeoff had commenced. It called for the operator to issue the launch command then issue an abort command immediately after takeoff.

The third flight test focused primarily on safety. Fire Scout developers have determined that when the aircraft is below 10 feet, it is safest to return immediately to the deck. If the aircraft is higher than 10 feet, it should continue up to a "perch" altitude of 30 feet and await further commands. Flight test three confirmed this functionality, as the air vehicle properly ignored an abort command above 10 feet and continued to the perch position. The aircraft was then allowed to hover for 12 minutes as telemetry data were recorded. Upon issuance of the land command, the aircraft executed an uneventful landing back to the launch spot.

"We are very proud of our efforts leading up to this important milestone for the program," said Cmdr. Rob Murphy, the VTUAV team lead. "We had an aggressive schedule, and the integrated team really pulled together to make it happen on time."

Some of the most notable improvements seen with the MQ variant of the Fire Scout include increased power, fuel, and payload capacity. Additionally, the MQ-8B offers more than double the mission radius and time on station than the previous version of VTUAV.

The Fire Scout UAV program strives to provide safe, reliable, repeatable, autonomous flight operations in a maritime environment from all air-capable ships. When operational, Fire Scout will provide critical situational awareness, intelligence, surveillance, reconnaissance, and targeting data to the forward-deployed warfighter. The program is on schedule for fleet introduction in fiscal 2008, with full rate production in fiscal 2009 following successful operational evaluation.

The Fire Scout UAV is manufactured by Northrop Grumman Unmanned Systems, and the program is managed by the U.S. Navy's Unmanned Air Systems program office, PMA 263.

For related news, visit the NAVAIR-Naval Air Systems Command Navy NewsStand Web site at < www.news.navy.mil/local/navair/ >.

*Schroeder is with NAVAIR Public Affairs, Program Executive Office for Strike Weapons and Unmanned Aviation.*

## ARMY NEWS SERVICE (JAN. 17, 2007)
## SDDC BECOMES A MAJOR SUBORDINATE COMMAND TO AMC
*Mitch Chandran*

The Military Surface Deployment and Distribution Command (SDDC) is officially a major subordinate command to U.S. Army Materiel Command (AMC), headquartered at Fort Belvoir, Va.

The Army designated its three large four-star commands —Forces Command, Training and Doctrine Command, and Army Materiel Command —as "Army Commands." This reorganization also eliminated the term "Major Army Command" or "MACOM" and moved several of the former MACOMs that used to report directly to Department of the Army underneath these three large Army commands.

SDDC had been a MACOM reporting to Department of the Army. At the same time, SDDC was, and still is, the Army Service Component Command to U.S. Transportation Command (USTRANSCOM)—a joint combatant command—and along with the Air Force's Air Mobility Command and the Navy's Military Sealift Command, provides USTRANSCOM with air, sea, and surface capability to move DoD assets worldwide.

Under the new Army reorganization, instead of reporting directly to Department of the Army as a MACOM, SDDC will fall under Army Materiel Command as one of their major subordinate commands for administrative purposes. Operationally, SDDC continues to work for USTRANSCOM, coordinating all surface movement of Department of Defense assets including the operation of 24 worldwide seaports.

"It's important to note our service to the warfighters will not change under this change in command relationship," said Col. Timothy McNulty, chief of staff for SDDC. "The change in command relationship will be transparent to the folks we support daily and to our workforce as well."

Some advantages are that AMC provides SDDC with four-star-level Army support in all aspects of the command's administrative requirements, and the synergies between SDDC and AMC's other major subordinate commands are invaluable.

"This is a very positive relationship," said Col. Scott Kilgore, Judge Advocate General for SDDC, "We now have more clout than in the past [Army four-star oversight],

and the AMC staff was very accommodating to us as we went through the reorganization process."

"We look forward to being a member of the AMC team, to leverage all AMC brings to the fight; and with SDDC joining the team, we are moving towards an Army command that is the logistician for this Army," McNulty said.

In a memorandum of agreement between Army Gen. Benjamin Griffin, AMC commander, and Air Force Gen. Norton A. Schwartz, USTRANSCOM commander, SDDC will continue to be responsible for all end-to-end surface deployment and distribution as an Army Service Component Command under the combatant command of USTRANSCOM.

The agreement identified 179 regulatory authorities SDDC possessed in which SDDC will relinquish 34 (19 percent) to AMC.

According to AMC officials, major advantages of aligning SDDC to AMC support the following emerging capabilities:
- Single Army integrator of logistics with joint and strategic partners
- Coordination of the end-to-end distribution pipeline from a national sustainment base to deployed theater support commands
- Providing command and control training readiness oversight of assigned forces
- Assisting Forces Command generation and rapid projection of trained and ready forces from Continental United States-based to Regional Combatant Commander and reset of forces upon return to home station.

"The relationships we have established with our ocean-going, rail, and highway commercial partners are just as important now as they were before the reorganization," McNulty said, "And we will continue to maintain and even improve upon these relationships."

The U.S. Army Materiel Command is the Army's premier provider of materiel readiness—technology, acquisition support, materiel development, logistics power projection, and sustainment—to the total force, across the spectrum of joint military operations. If a soldier shoots it, drives it, flies it, wears it, or eats it, AMC provides it.

For more information about SDDC, visit < www.sddc.army.mil >. For more information about AMC, visit < www.amc.army.mil >.

*Chandran is with the Military Surface Deployment and Distribution Command, a major subordinate command to U.S. Army Materiel Command (AMC), headquartered at Fort Belvoir, Va.*

## AIR FORCE PRINT NEWS (JAN. 18, 2007)
## JPADS CONTINUES 'REVOLUTION IN AIR DROP TECHNOLOGY'

*Tech. Sgt. Scott T. Sturkol, USAF*

**F**ORT DIX, N.J.—Since October 2005, the Air Mobility Warfare Center has partnered in an effort to revolutionize the way the Air Force does its airlift air drops in the expeditionary environment and around the globe with the Joint Precision Air Drop System, or JPADS, initiative.

"When it was said to make this concept of JPADS a reality and we became Air Mobility Command's lead on this project, we started work right away," said Maj. Gen. David S. Gray, AMWC commander. "General (Duncan J.) McNabb (AMC commander), made this a command priority, and he definitely made it my No. 1 priority. I'm proud of how far we've come and how fast we got there."

In November 2005, AMC opened a JPADS "Tiger Team" that included representation from dozens of agencies at command headquarters, especially the Combat Operations Division and Plans and Programs, as well as people from the Air Mobility Battlelab and the Air Force Mobility Weapons School. The team was chaired by Col. Charles Stiles, the AMWC vice commander.

The team's work paid off when the first combat air drop using JPADS took place over Afghanistan Aug. 31.

"That effort put us a day ahead of the goal for combat operability by Sept. 1," said Maj. Dan DeVoe, AMWC project officer for JPADS who deployed to Afghanistan in 2006 as part of the mobile training team establishing system operations in theater.

The system is a high-altitude, all-weather capable, global positioning system-guided, precision air drop system that provides increased control upon release from the aircraft, said DeVoe.

"When you're able to complete air drops at higher altitudes for example, it keeps the aircraft and aircrews safer and out of range of the enemy," DeVoe said.

"Additionally, with the ability to precisely drop bundles to multiple, small drop-zones, JPADS brings an entirely new capability to the warfighter while saving lives and resources in the process."

Traditional air drops by Air Force airlifters, such as the C-130 Hercules and C-17 Globemaster III, are at altitudes of anywhere between 400 and 1,000 feet. With JPADS, those same airlift aircraft have the potential to guide air drop bundles from as high as 25,000 feet.

JPADS includes a mission planner to plan the optimal release points using special software residing on a laptop computer. The computer is loaded with a high-resolution grid of forecasted winds. The mission planner also receives updated, near-real-time wind speeds while in the air using hand-launched dropsondes (hand-sized, parachute-equipped wind indicators).

There are also multiple types of JPADS parachute systems that either have one or two types of parachutes—steering and traditional—that are airborne guidance units equipped with a GPS receiver that has steering lines attached to the steering parachute and a GPS retransmit kit mounted inside the bundle to ensure uninterrupted signal reception.

"When dropped, GPS receivers use the steering mechanisms to fly the bundles to their predetermined drop zones," DeVoe said. "In combat zones right now, JPADS-equipped bundles are being delivered in the 2,000-pound category carrying everything from ammunition to food for troops in remote, hard-to-reach places."

JPADS mission planners have also found a role in improving traditional air drops as part of the Improved Container Delivery System, or ICDS.

"Using their JPADS computer equipment, mission planners are now flying along traditional air drop missions providing better aerial release points for those bundles as they are dropped from the plane," DeVoe said.

"They've been able to increase air drop accuracy and altitude for traditional ICDS bundles. It's getting better every day with this technology."

As of December 2006, 120 ICDS air drops and nine JPADS air drops were completed delivering more than 1,000 bundles to troops on the ground.

DeVoe said combat operations using JPADS will continue to grow.

"This has been successful in Afghanistan, and soon we hope it will be further utilized in the Iraq theater of operations," DeVoe said.

This illustration shows how a C-130 Hercules can airdrop supplies to multiple locations using the Joint Precision Air Drop System. The system uses global positioning system-guidance along with steerable parachutes to deliver air drop bundles into multiple landing zones.
U.S. Air Force graphic

Precision air drops could eventually lessen the numbers of convoys military forces undertake in both Iraq and Afghanistan, the major said.

"Fewer convoys means less exposure to improvised explosive devices and other hazards troops face on the roads," DeVoe said. "That translates to saving lives."

JPADS has been tested and deployed successfully in the 2,000-pound range, DeVoe said. However, further testing to air drop bundles eventually weighing up to 60,000 pounds is expected.

"This technology and its applications are only at the beginning," Devoe said. "The sky is the limit on where this can go for improving operations on the battlefield."

The overall Department of Defense JPADS initiative is led by the Army, but is a joint effort involving the Air Force, Navy, and Marine Corps. The AMWC's involvement has been a significant part of the Air Force's com-

prehensive effort, and AMC's support for the joint development of JPADS will only continue to grow.

"This is a revolution in the way air mobility supports the warfighter," Gray said. "We want to save lives and win the war. This will help us get there."

*Sturkol is with Air Mobility Warfare Center Public Affairs.*

## AIR FORCE PRINT NEWS (JAN. 24, 2007)
## NEW TECHNOLOGY EXPANDS AIR FORCE'S COMBAT CAPABILITY

*Capt. Dustin Hart, USAF*

**M**OODY AIR FORCE BASE, Ga.—The 820th Security Forces Group was selected recently as the first Air Force unit to purchase and deploy the Ground Situational Awareness Toolkit.

The GSAT system, consisting of the Scan Eagle unmanned aerial system and ShotSpotter gunfire acquisition technology, will allow airmen to identify possible enemy firing locations by tracking where shots are coming from.

"This system brings additional technology to the ground warfighter and keeps us at the cutting edge of technological improvements," said Col. John Decknick, 820th SFG commander. "Employing the GSAT system in the combat zone will greatly expand our combat capability."

While the 820th SFG will be the first Air Force unit to conduct a user evaluation of the GSAT system, its two components, Scan Eagle and ShotSpotter, are not new to the military. Scan Eagle has logged more than 20,000 hours supporting Navy and Marine missions in Iraq, and ShotSpotter is used by both law enforcement and military agencies.

ShotSpotter uses acoustic sensors, located on the backs of patrolling airmen and humvees, to detect the location of enemy muzzle blasts and, in some cases, the path of the fired projectiles. This information is then passed to on-the-ground commanders for analysis. It is also shared with an overhead Scan Eagle, which then directs its advanced cameras to the area, giving a picture of the enemy's location.



Boeing Scan Eagle Unmanned Aerial Vehicle is launched autonomously via a pneumatic wedge catapult launcher. The low-cost, long-endurance UAV provides intelligence, surveillance, and reconnaissance or communications relays. The Ground Situational Awareness Toolkit (GSAT) system, consisting of the Scan Eagle unmanned aerial system and ShotSpotter gunfire acquisition technology, allows airmen to identify possible enemy firing locations by tracking where shots are coming from.

*Photograph courtesy Boeing Media*

Scan Eagle, which measures four feet long with a 10-foot wingspan, is launched by a catapult system and has an approximate 20-hour flight time.

"This technology will allow us to observe enemy locations and activity, and conduct long-term surveillance and reconnaissance," 2nd Lt. Ben Worley, an 820th SFG intelligence officer said of the GSAT's capabilities. "It also provides better situational awareness (of the battlespace) to our commanders.

"With the variety of missions we conduct while deployed, having an overhead capability allows us to better prosecute our mission and protect our airmen," he said.

To prepare for GSAT's arrival in early March, three airmen are traveling to Clovis, N.M., for eight weeks of training on how to operate the system. This also will include how to maintain GSAT, allowing the 820th SFG airmen to be self-sufficient.

In order to fully use GSAT on its own, 820th SFG officials are also sending two maintainers and an intelligence airman to Clovis to attend shorter training courses on maintaining the systems and analyzing the information they provide.

Once training is completed and GSAT arrives at Moody, the 820th SFG airmen will begin incorporating it into the unit's ground training. This also will allow officials to evaluate the GSAT while performing the various missions it may encounter when deployed.

After the evaluation of GSAT is concluded, the equipment will be matched with one of the unit's deploying squadrons.

*Hart is with 23rd Air Wing Public Affairs.*

## AIR FORCE PRINT NEWS (JAN. 25, 2007)
## MOODY AIRMEN TEST NEW, NONLETHAL METHOD OF REPELLING ENEMY

*Airman 1st Class Eric Schloeffel, USAF*

**M**OODY AIR FORCE BASE, Ga.—Airmen of the 820th Security Forces Group are currently evaluating a long-range, nonlethal weapon system that could eventually save lives in the war on terrorism.

The Active Denial System is designed to engage and repel human targets by projecting a beam of energy that creates an intolerable heating sensation on the skin, said Tech. Sgt. John DeLaCerda, the noncommissioned officer in charge of the 820th SFG advanced technologies section.

"Right now, we don't have a medium between shouting and shooting when determining an adversary's intent," he said. "When operating ADS, you can be at a distance even farther than small arms range and still repel an individual."

The ADS beam is invisible and operates on a 95-gigahertz millimeter radio frequency wavelength that moves at the speed of light. The effect penetrates the skin at 1/64 of an inch, which causes pain receptors to react. Once removed from the targeted area, the effect of the beam quickly dissipates.

"The pain is comparable to an intensified version of opening an oven and feeling the initial blast of hot air," said Staff Sgt. Jason Delacruz, an ADS operator who has also been exposed on several occasions for training purposes. "The effects are extremely sudden, and natural instincts automatically force you to quickly exit the target area."

ADS cannot be impeded by most readily available materials and is designed to be very discriminate.

While the effects can be unpleasant, ADS has undergone extensive testing since its inception more than 12 years ago.

Human effects experts have determined there are no long-term health effects associated with ADS, and research involving more than 600 volunteers and 10,000 exposures has proven there is a less than a one-tenth of 1 percent chance of even a very minor injury.

The beam is also designed to affect an individual for only a short moment due to safety presets and features, DeLaCerda said.

"ADS isn't developed to engage a target for a long period of time, and we aren't trained to operate it that way," he said. "Once we expose an individual and determine their intent, we will no longer engage them with the beam."

The 820th SFG was the first unit selected to conduct the extended user evaluation portion of the advanced concept technology demonstration process. This process is designed to expedite the transfer of advanced technologies to the warfighters.

820th Security Forces Group Airmen react to being engaged by the Active Denial System during a perimeter security scenario Jan. 24 at Moody Air Force Base, Ga. Some of the intended benefits of ADS include helping troops secure perimeters, peace-keeping, humanitarian assistance, and crowd dispersal.
*U.S. Air Force photograph by Airman 1st Class Gina Chiaverotti, USAF*

To evaluate the system, 820th SFG airmen are conducting a series of realistic combat scenarios to determine its potential effectiveness in a deployed environment. Some of the system's intended benefits include helping troops secure base perimeters, checkpoints and entry control points, peacekeeping and humanitarian assistance, and crowd dispersal, DeLaCerda said.

"ADS has been very effective, and we're getting a lot of positive feedback," the sergeant said. "Nonlethal weapons have a real role on today's complex battlefield because telling the difference between combatants and non-combatants can be very difficult. In the long run, this can help limit collateral damage, protect the innocent, and save the lives of our men and women in combat."

*Schloeffel is with 23rd Air Wing Public Affairs.*

## DEPARTMENT OF DEFENSE NEWS RELEASE (JAN. 30, 2007)
## AIR FORCE POSTS REQUEST FOR PROPOSALS FOR TANKERS

The Assistant Secretary of the Air Force for Acquisition announced Jan. 30 the posting of the KC-X aerial refueling aircraft Request for Proposal to the Federal Business Opportunities Web site, signaling the official launch of the Air Force's number one priority acquisition program.

The announcement comes after an extensive and transparent dialogue between Air Force officials and officials from the Office of the Secretary of Defense, Air Mobility Command, industry, and members of Congress. Sue C. Payton, the Air Force's senior acquisition executive (SAE), said that throughout this entire acquisition process, the Air Force has sought to minimize development risk

among differing aircraft manufacturers and types. This RFP is the culmination of those deliberations.

"The Air Force aerial tanker is essential to all Air Force and Joint global operations," said Lt. Gen. Donald Hoffman, the military deputy for acquisition. "It allows the Joint Force to project mobility, strike, and surveillance forces anywhere and anytime without relying on intermediate bases for refueling. Tankers put the 'Global' in Global Power."

The KC-X program is the first of three acquisition programs the Air Force will need to replace the entire fleet of aging KC-135 Stratotankers, which have been in service for more than 50 years. The primary mission of the KC-X will be to provide aerial refueling to United States military and coalition aircraft in the global war on terror and other missions. However, the Air Force also intends to take full advantage of the other capabilities inherent in the platform, like airlift, and make it an integral part of the Defense Transportation System.

"From addressing national security threats to supporting rapid global strikes to providing urgently needed humanitarian operations, Joint and Coalition operations depend upon the rapid global mobility capabilities which the Air Force aerial tanker provides," said the general.
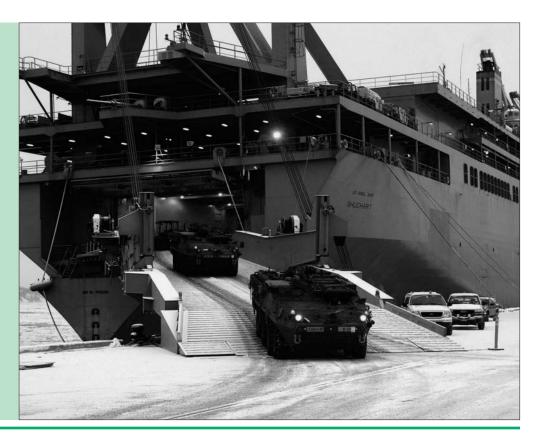
The RFP stipulates nine primary key performance parameters: air refueling capability, fuel offload and range at least as great as the KC-135, compliant communication, navigation, surveillance/air traffic management equipage, airlift capability, ability to take on fuel while airborne, sufficient force protection measures, ability to network into the information available in the battlespace, and survivability measures and provisioning for a multipoint refueling system to support Navy and allied aircraft.

Payton stressed that the Department has gone through a rigorous review process for KC-X and has validated that the RFP accurately reflects the requirements as laid out by the warfighter.

The final RFP defines an integrated, capability-based, best-value approach. It includes specific factors for assessing the capability contribution of each offeror. Along with cost and assessments of past performance and proposal risk, these factors provide the source selection authority with excellent means to determine the best value



Strykers make their way down the *USNS Shughart's* gangplank on Feb. 2, 2007. The vehicles were prepped, loaded onto rail cars, and returned to Fort Wainwright where crews will begin an overhaul as part of the 1st Stryker Brigade Combat Team, 25th Infantry Division's reset.

Photograph by John Pennell

between proposals of significantly differing capabilities and cost.

"The Air Force remains committed to a full and open competition. The KC-X is the Air Force's number one acquisition priority and will continue to be conducted in a transparent and deliberate manner," said Payton.

For additional information, contact Air Force Media Operations officials at 703-695-0640. To view the RFP, go to < http://www.fbo.gov/spg/USAF/AFMC/ASC/FA8625-07-R-6470/Attachments.html > and scroll down to "Solicitation 01 (posted on Jan. 30, 2007)."

## AMERICAN FORCES PRESS SERVICE (FEB. 2, 2007)
## ARMY'S EQUIPMENT "RESET" PROGRAM AHEAD OF 2006 PACE

*Gerry J. Gilmore*

**W**ASHINGTON—The combination of available money and around-the-clock work is enabling the Army to increase the pace of refurbishment of equipment that's damaged or worn out from service in Afghanistan and Iraq, senior military leaders testified before a joint U.S. House committee on Capitol Hill Jan. 31.

The Army received $17.1 billion from Congress for fixing war-ravaged military equipment for fiscal 2007 and has obligated $11.2 billion of those funds, Brig. Gen. Charles Anderson, the Army's director of force development, said before members of the Readiness and Air and Land Forces subcommittees.

Another $6.5 billion has been obligated for procurement of new equipment, Anderson said, noting that $4.7 billion more has been made available for operational and maintenance needs.

Anderson thanked Congress for providing the funding. Those refit and maintenance dollars are very important to the Army in a time of war when trucks, tanks, and helicopters are racking up excessive mileage or flight time and otherwise experiencing hard service during combat operations in Afghanistan and Iraq, he said.

"Tanks today are running at five times the program's rate; trucks, five to six times their program usage, and they are running, as you well know, with heavy armor; helicopters, five to six times their program usage," Anderson said.

However, current refurbishment efforts "will reverse the effects of stress on all our equipment," Anderson said.

About 20,000 pieces of war-ravaged equipment like Bradley Fighting Vehicles, Abrams tanks, artillery pieces, and wheeled vehicles were repaired and made ready for continued service in 2005, said Brig. Gen. Robert Radin, who also testified at the hearing. Radin is U.S. Army Materiel Command's deputy chief of staff for Logistics and Operations.

About 33,000 pieces of Army equipment were repaired in 2006, Radin said, adding that about 47,000 pieces of equipment are slated for refurbishment in 2007. "We've seen a steady build [in the pace of equipment refurbishments] over the years," he said.

Stateside maintenance depots are humming with activity, Radin said. An additional 1,300 employees are being hired to accommodate the increased work, he noted.

The Army term for the equipment refurbishment process is called reset, Anderson said. "Reset is a series of actions to restore a unit to a desired level of combat capability commensurate with future missions," he explained. Reset consists of three components: repair, replace, and recapitalize, he said.

Repair starts with an inspection followed by maintenance and possible replacement of some parts to bring equipment to original technical specifications, Anderson said. Replacement is to buy new, he said, to replace equipment destroyed in battle or otherwise too damaged to fix. Also listed under replacement is Reserve Component equipment that's been left overseas for other units to use, he said.

Recapitalizing involves overhauling or restoring equipment to improve performance or make it like new from the factory, Anderson said.

"Reset, in simplest terms, will reverse the effects of stress on all our equipment," Anderson said.

Funding from Congress will be used to reset 24 brigade combat teams involving about 4,000 soldiers and about 40,000 pieces of equipment returning from duty in Afghanistan and Iraq, he said.

Funding provided by Congress "has allowed us to synchronize resources and to increase the velocity and the effectiveness of reset," Anderson told committee mem-

bers. "For instance, timely funding has allowed the depots to order repair parts in advance of equipment arrival."

Maintenance depots have increased in workload and capacity, Radin said. And, when required, depot maintenance crews can perform rapid shifting of work from, say, conducting repairs on trucks to tanks, he said.

"In my personal estimate, I think we're about six months ahead of where we were last year in our program and being able to see it, execute, order the repair parts, (and) get the repair parts so that they're on hand as the equipment comes in," Radin said.

*Gilmore writes for American Forces Press Service.*

### AMERICAN FORCES PRESS SERVICE (FEB. 8, 2007)
### FUTURE COMBAT SYSTEMS RESTRUCTURING A 'BALANCING ACT'

*Fred W. Baker III*

**W**ASHINGTON—The Army's Future Combat System program has been restructured as part of a "balancing act" between equipping the current force and modernizing the future force, a top Army acquisition official said yesterday.

Under the restructuring, four of the 18 systems in the program were deferred, and the fielding rate for the system's brigade combat teams was stretched out over five more years. The changes to the FCS program will eliminate $3.4 billion from its budget over the next five fiscal years, Army Maj. Gen. Jeffrey A. Sorenson, deputy for Acquisition and Systems Management, told Pentagon reporters.

The FCS was designed as a "family" of 18 individual sys-

tems, plus the network and the soldier—referred to as 18 + 1 + 1. The systems are a variety of manned and unmanned vehicles, sensors, launch systems, and unmanned aerial vehicles. All are connected by a common network with the soldier. With four of the systems deferred, the system is now 14 + 1 + 1.

None of the program adjustments compromise the systems' capabilities, he said.

"Clearly we've had to go through a very difficult period here in terms of making sure we can modernize as well as support the current operations and the current force," Sorenson said. "It was a balancing act with respect to funding priorities in modernization as well as making sure the current force is taken care of."

Most significantly, the changes call for stretching the fielding of the 15 FCS brigade combat teams from over a 10-year period to 15 years. The fielding for the first is slated



Soldiers from the Future Combat Systems, Evaluation Brigade Combat Team, employ an unmanned vehicle to clear a road during an exercise and live demonstration Feb. 1 at Oro Grande Range, Fort Bliss, Texas.

*Photograph by Maj. Deanna Bague, USA*

for fiscal 2015. This will reduce costs by roughly $700 million.

Two of the four classes of unmanned aerial vehicles in the program were deferred after a study concluded that there wasn't an immediate need. But, additional funds were redirected in the program to buy more of the two remaining classes of UAVs whose prototypes have been successful in Iraq, officials said.

The heavy armed robotic vehicle system was deferred to later in the program, but the numbers of some lighter robotic versions were increased. Also, the intelligent munitions system, an armed sensor that allows troops to control an area without a physical troop presence, was separated from the program. The Army will not buy any more than what is currently under contract to produce. But, again, the numbers of other sensors in the program were increased. Besides reducing costs, the changes will deliver future technologies into the hands of troops in the fight quicker, Sorenson said.

In 2005, program officials developed a "spin out" strategy, which would field elements of the FCS family of systems as they were developed, instead of waiting until the complete system is fielded. Initially, some of the unmanned systems and part of the network will be fielded, Sorenson said.

Starting in fiscal 2008, program officials hope to deliver some of the unattended ground sensors to soldiers. There are two categories of the sensors: tactical and urban. The sensors can be used to gather intelligence and conduct surveillance and reconnaissance, as well as provide troops additional security as they clear and secure buildings.

The network, which will enhance battle command capabilities, will be available as much as two years earlier under the restructuring.

Sorenson said that despite the cuts, FCS remains the largest modernization program for the Army. The program is on time, on cost, and still the number one priority of Army leadership, he said.

"It is absolutely the number one priority. And, though we've had to make some adjustments in the program, we have not walked away from the fact that the Army will have to have to modernize in the future," Sorenson said.

Total cost of the program is expected to be $162 billion with another $2 billion slated for additional construction required.

Sorenson said he does not anticipate problems with the program being approved as part of the newly submitted defense budget.

## DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 2, 2007)
## RELIABLE REPLACEMENT WARHEAD DESIGN DECISION ANNOUNCED

The Department of Defense supports today's announcement by the Department of Energy's National Nuclear Security Administration that it will proceed with the Reliable Replacement Warhead (RRW) program.

The decision is the culmination of an 18-month study by the Nuclear Weapons Council (NWC), a group that oversees the safety, security, reliability, and effectiveness of the U.S. nuclear weapons stockpile.

The NWC is chaired by Kenneth Krieg, under secretary of defense for acquisition, technology and logistics. The NWC members are the under secretary of energy for nuclear security and administrator of the NNSA, the vice chairman of the Joint Chiefs of Staff, the under secretary of defense for policy, and the commander of the U.S. Strategic Command.

"This program will improve the safety of the stockpile through new design and manufacturing techniques, and it will enhance security with state-of-the-art technology," said Krieg. "Additionally, the RRW program will enable a more responsive nuclear infrastructure and, ultimately, a reduced stockpile size."

The NWC approved a NNSA/Navy project proposal that is largely based on a Lawrence Livermore National Laboratory design. As part of the core program, several features of the Los Alamos Nuclear Laboratory design will continue to be developed and incorporated as appropriate. Expertise from both laboratories will be used to maximize the success of the program. The initial task will be to clearly define the baseline configuration and project scope, cost, and schedule.

"The RRW program is the right thing to do for the nation," Krieg said. "RRW is critical for sustaining long-term confidence in our nuclear deterrent."

# Spotlight on DAU Learning Resources

## DAU'S PERFORMANCE SUPPORT: ENHANCING ACQUISITION OUTCOMES

*Art Greenlee*

The Defense Acquisition University provides on-demand, leading-edge program, technical, and business professional expertise to the acquisition, technology, and logistics community and other customers. DAU faculty and staff engage with our customers and provide just-in-time assistance, advice, and solutions primarily in the areas of performance consulting and targeted/tailored training. Both areas offer learning assets vital to the development and transformation of individual, team, or organizational outcomes.

## Performance Consulting

Performance Consulting consists of either content consulting with subject matter experts from functional areas helping a customer accomplish a given job or task (such as developing an acquisition strategy or applying Earned Value Management); or process consulting, where the focus is on improving business or technical processes and learning more effective ways of doing things. The DAU consultant becomes the catalyst for change in learning new ways of looking at and solving familiar problems.

DAU has entered into performance consulting partnerships with all AT&L acquisition centers across all the Services, other DoD agencies, governance organizations, and all federal agencies. The university has also provided leadership training and expert guidance in all program planning, execution, and reporting; and systems engineering, logistics, and manufacturing management of acquisition programs. DAU consultants have enhanced performance outcomes in all phases of the acquisition lifecycle framework.

DAU also offers facilitated collaboration to help groups or teams accomplish their goals. The DAU facilitator, unlike a trainer, does not have a preselected course design but offers automated tools and techniques to lead the group/team in virtual brainstorming, planning, and consensus building to achieve process or organizational change. Assisting groups or teams with strategic planning, problem solving, plan development, and alternative analysis are examples of this efficient intervention tool. Learn more about DAU's facilitated collaboration, by visiting < www.dau.mil/performance_support/facilitated_decision-making.asp >.

## Targeted Training

DAU currently offers 50 already packaged, off-the-shelf targeted training (TT) courses. The length and breadth of the courses vary depending on what has already been developed for a particular TT course. The course descriptions can be found in the DAU Catalogue of Targeted Training Courses and Workshops at < www.dau.mil/performance_support/targeted_training.asp >. We recently added "Crucial Conversations," which is a practical, high-leverage communication skills course for all levels of management. Among the most in-demand TT courses are Performance-based Service Acquisition, Contracting Officer's Representative, and Economic Analysis for Decision Making. Each course has an assigned TT course manager who will contact the customer personally and discuss course content and scheduling.

In addition to off-the-shelf courses, DAU can develop any assignment-specific, just-in-time training to meet any customer's "targeted" need. The New Program Startup Workshop is an example of this targeted approach that has produced successful results. The first workshop was initially designed for Raytheon and the program management office to facilitate better government and industry teaming after contract award. A team of DAU faculty developed learning assets to address the specific needs of the program's startup actions—team arrangements, risk management and systems engineering approach planned, and contractor performance measurement system. The workshop facilitated an early environment of trust, collaboration, teamwork, and communication between key government and industry program stakeholders. Recent New Program Startup Workshops included the Army's AH-64 Apache Block III and the Navy's CH-53K Heavy Lift Helicopter programs.

## Tailored Training

Tailored training takes already developed, existing core learning assets such as Defense Acquisition Workforce Improvement Act (DAWIA) core courses and modifies or tailors the course or workshop to meet the learner needs. The faculty member may also tailor other existing learning assets to provide customers what they need when they need it. An example of tailored training was the Information Technology Lifecycle Management (ITLM) workshop. DAU subject matter experts worked with the Tank-automotive and Armaments Command Chief Information Officer (TACOM CIO) and tailored a workshop to address compliance with the Clinger-Cohen Act, with emphasis

on ITLM. Core information technology course modules and other already existing learning assets were tailored, resulting in participant materials on conducting business process improvements before investing; Best Practices vs. outdated approaches of acquiring IT systems; ineffective implementation of automated information systems resulting in fraud, waste, and abuse; as well as coverage of associated legislation and DoD regulations.

These tailored events may result in a targeted training course found on our Web site based on the demand for course content by the AT&L community and other customers.

If a performance support effort requires reimbursement to DAU for personnel travel and other expenses, both parties will sign a DD 1144, Support Agreement.

To learn more about these best value DAU performance support resources and how they can benefit your organization, contact your DAU Region or visit the performance support Web site: < www.dau.mil/performance_ support >.

*Greenlee is director of performance support and rapid deployment training at DAU.*

## NEW GUIDE FOR INTEGRATING SYSTEMS ENGINEERING INTO DOD ACQUISITION CONTRACTS

**A**n all new *Guide for Integrating Systems Engineering into DoD Acquisition Contracts* (version 1.0) is now available on the Web. This is another in the series of guides (e.g., *Defense Acquisition Guidebook*, *Systems Engineering Plan Preparation Guide*, *Integrated Master Plan/Integrated Master Schedule Guide*, *Risk Management Guide*) developed by Office of the Deputy Under Secretary of Defense (Acquisition and Technology), Systems and Software Engineering, to assist acquisition programs in their technical planning and implementation to more effectively deliver capability to the warfighter.

The target audience for this guide is the government program team responsible for incorporating program technical strategy and technical planning into the Request for Proposal, and performing pre-award functions, including source selection, as well as post-award contractor execution activities. It emphasizes early and consistent application of systems engineering at the onset of a program (Concept Refinement and Technology De-velopment phases) and integration of the technical approach with the Acquisition Strategy for inclusion in the solicitation package to obtain the best possible program solution. Included are the key aspects of the Federal Acquisition Regulation of which the solicitation team needs to be cognizant along with sample language that can be incorporated into the RFP to incentivize Offerors to consider technical planning in their proposals. The guide is not all-inclusive but is meant to give program offices a starting point for ensuring that contracts incorporate Systems Engineering as a critical element in any system acquisition.

View the guide at < www.acq.osd.mil/se/publications. htm > or < https://acc.dau.mil/CommunityBrowser. aspx?id = 127987 >.

## DEFENSE ACQUISITION UNIVERSITY CONTINUOUS LEARNING CENTER (JAN. 11, 2007)
### NEW MODULES

**T**he following new modules are available on the DAU Continuous Learning Center at < http://clc.dau.mil > through both "browse" and "register" options:
- Contract Format and Structure for the DoD e-Business Environment (CLC 033)
- Defense Distribution (CLL 017)
- Contracting with Canada (CLC 050)

### Harvard ManageMentor Modules
Interested in taking a Harvard ManageMentor module? Access these links to find out more information.
- Topics Available: < http://www.harvardmanage mentor.com/demo/plusdemov4/menu_cat.htm >
- Preview the "Implementing Strategy" module < http://www.harvardmanagementor.com/demo/plus demov4/strategy/index.htm >
- Demo of module features: < http://www.harvard managementor.com/demo/plusdemov4/tour/mmTour Frame.html >

### How to Register
Visit the Continuous Learning Center at < http://clc. dau.mil > and select the registration option. In the registration system there will be options to register for courses, continuous learning modules, or Harvard ManageMentor modules. Select the Harvard ManageMentor modules option, and a listing of the 41 available topics will appear in the drop down box with the "HBS - " prefix.

## NEW GRADUATE DEGREE COURSES DESIGNED FOR AT&L WORKFORCE

California State University, San Bernardino (CSUSB) announces that it will begin offering media-rich and completely online acquisition management courses. These courses can be applied toward CSUSB's master's degree in public administration, or may be used as part of other educational programs with approval (DAU accreditation toward Level II is pending).*

The two online acquisition courses were developed to meet the needs of the AT&L workforce and boast a variety of cutting-edge media enhancements including video guest lectures, interactive learning exercises, simulations, and streaming audio and video. The two online acquisition courses are PA 618, "Government Systems Management, Acquisitioning, Contracting, and Capital Development" and PA 671, "Defense Acquisition Program Management."

PA 618 introduces the principles and concepts that underlie successful defense acquisition management, as well as major systems development and production. The course focuses on management of the acquisition process for defense systems from the development of an initial desired capability or need through design, development, production, fielding, sustainment, and disposal. Students will gain an understanding of successful acquisition as an interdisciplinary activity through contributions and applications of principles from contracting, business, management, and technical disciplines. The course also emphasizes the history, statutory, regulatory, and policy environment of defense acquisition. Numerous public and private industry case studies will illustrate the application of concepts and principles in actual acquisition programs. This course is structured, designed, and delivered to achieve Defense Acquisition University Acquisition 101 and Acquisition 201 course equivalencies for graduate students attending California State University, San Bernardino.

Major topic areas include:
- The Defense Acquisition Environment & Decision Program Management Framework
- The Joint Capabilities Integration Development System
- Systems Engineering Management
- Contract Management
- Resource Management (Planning, Programming, Budgeting and Execution)
- Test and Evaluation
- Software Acquisition Management
- Production Quality and Manufacturing Management

PA 671 builds on defense acquisition program management theory presented in PA 618 and puts theory into practice by providing application skills needed in a program office or as an integrated product team (IPT) lead. This course is structured, designed, and delivered to achieve Defense Acquisition University Program Management Tools (PMT 250) course equivalency for graduate students attending California State University, San Bernardino. If completed along with PA 618, Government Systems Management, Acquisitioning, Contracting, and Capital Development, the student will have completed the DAWIA Level II Program Management Certification academic requirements.

Students who successfully complete this course will be able to apply best practices for establishing effective IPTs; develop work breakdown structures (WBS); build program schedules and apply risk management principles using current industry software; apply current cost estimating processes; perform contract planning and post-award activities; and use earned value tools and techniques for program planning and control. According to the campus director of Distributed Learning, Dr. Jim Monaghan, the result is "the best in instructional design and production values. For example, the video simulations using actors achieve more than text-based approaches could ever accomplish. This use of multimedia allows us to tailor content to different learning styles, and research shows that it has a greater impact on learning."

Cal State San Bernardino's College of Extended Learning will administer and manage the two online courses, assisting participants with course registration, and other student services. Dr. Jeet Joshee, dean of the College, states that "although we are part of a state university, our goal is to work very closely with executive participants to provide the high level of service people usually associate with private institutions." Because these programs are not operated through state university funding, they will be available to any qualified person for the same cost, regardless of residency status.

For more information on Cal State San Bernardino's online acquisition courses, contact Michael-Anne Barner in the College of Extended Learning: mbarner@csusb.edu or call 909-537-3907.

*DAU accreditation pending; elective courses can be applied towards a Master's in Public Administration at CSUSB or may be used as a part of other educational programs

*with the permission of the coordinator of graduate instruction.*

## MANDATORY CONTINUOUS LEARNING MODULE FOR CONTRACTING PERSONNEL SERVING IN ACQUISITION POSITIONS

On Dec. 29, 2006, Defense Procurement and Acquisition Policy Director Shay Assad directed that all contracting personnel serving in acquisition positions complete "Contract Format and Structure for the DoD e-Business Environment." This continuous learning module, offered by the Defense Acquisition University at <http://clc.dau.mil>, must be completed no later than May 15, 2007. Assad's memorandum also requested that the heads of the DoD Components, acting through their Component Acquisition Executives, incorporate this training into their component acquisition career development programs for current employees and all new entrants into the Contracting career field of the defense acquisition workforce. Review the memorandum at <http://www.acq.osd.mil/dpap/olicy/policyvault/20062098DPAP.pdf>.

## PROGRAM EXECUTIVE OFFICE FOR SIMULATION, TRAINING, AND INSTRUMENTATION
### PEO STRI CLASS EARNS 100 PERCENT DAWIA CERTIFICATION RATE

*Heather L. Kelly*

The Program Executive Office for Simulation, Training, and Instrumentation (PEO STRI) graduated Defense Acquisition University, Program Management Office Course, PMT 352B, in Orlando, Fla., Nov. 17, 2006.

The 30-member class earned a solid 100 percent certification rate, raising PEO STRI's overall Defense Acquisition Workforce Improvement Act (DAWIA) certification level to a record 75 percent.

During the six-week course, acquisition professionals from the Army, Navy, Air Force, Marine Corps, and defense industry convened daily to receive instruction and collaborate on scenario-based practical exercises. Students participated in the MindRover Exercise, a simulation program used to design and equip a vehicle with various sensors, movement components, and weapons. These exercises culminated in "Battle Royale," in which the customized vehicles raced against each other. As a member of the winning team, PEO STRI's Leslie Dubow said the game captured the class's attention.

"It was an engaging tool," said Dubow. "Working with the instructors and as a team really helped the class get involved in the coursework," she added.

Although the MindRover combat race was a part of the curriculum, the course primarily challenges students to broaden their view of program management, said Dubow.

As the second part of the DAWIA Level III certification in the Program Management career field, the course demands time, focus, and determination, said Traci Jones, project support executive for PEO STRI.

"Professional development is a priority at PEO STRI," said Jones. "Currently, the Army's DAWIA certification level is 38 percent. Our workforce is far exceeding those numbers," she added.

Jones credits the PEO's high success and certification rate to dedicated workers and supportive leaders. "We encourage all of our employees to take responsibility for their careers. That means getting out of their comfort zones and challenging themselves. The courses offered by the DAU here in Orlando allow them to do just that," said Jones.

The class was the second DAU PMT 352B class held in Orlando. The first on-site class graduated in March 2006. PEO STRI looks forward to hosting more DAU courses on-site, particularly PMT 352B.

Headquartered in Orlando, Fla., PEO STRI executes an annual budget of over $2 billion. In addition to providing interoperable training, testing, simulation solutions, and program management, the PEO provides life-cycle support and operations for most of the Army's training systems around the world. PEO STRI is dedicated to putting the power of simulation into the hands of the nation's warfighters.

*Kelly is the Public Affairs Officer for PEO STRI.*

# Career Development

NAVAL SUPPORT ACTIVITY, MECHAN-
ICSBURG PHILADELPHIA (JAN. 5, 2007)
**PA. NAVY BASE AND LOCAL COMMU-
NITY COLLEGE PARTNER TO HELP BUILD
NAVAL ACQUISITION WORKFORCE OF
THE FUTURE**

*Michael J. Metts*

**M**ECHANICSBURG, Pa.—The Harrisburg Area Community College (HACC), Harrisburg, Pa., and the Naval Acquisition Career Center (NACC) have partnered to refresh the naval acquisition workforce and to develop tomorrow's acquisition workforce leaders. Working through the Career Services Office, NACC sought to recruit HACC business students to fill two key positions that directly support the Naval Acquisition Intern Program (NAIP), the Navy's largest career development program.

NACC, located on the Naval Support Activity Mechanicsburg, is responsible for executing all of the acquisition workforce development programs for the Navy's Director of Acquisition Career Management (DACM). In addition to the NAIP, the center's responsibilities include management of the DACM budget, the acquisition workforce tuition assistance program, the continuous learning program, and the information technology systems that support these programs.

NACC used the Student Career Experience Program authority this summer to hire Nicole Ehlman and Amanda Baitsell. Both are learning jobs that help NACC support the almost 800 Naval acquisition interns homeported all across the country.

Ehlman graduated in 2004 from East Pennsboro Area High School. Her goal at HACC is to earn a business administration associate degree and transfer her credits to Penn State to earn a bachelor's degree in marketing. She works in the business and financial management division at NACC as a payroll technician, ensuring the interns are paid accurately and on time.

"This is my first experience with the student career experience program and I was not sure what to expect," noted Scott Underkoffler, an NACC budget officer who supervises Ehlman. "I've been very impressed with her ability to balance her full-time work schedule while maintaining a full class schedule at Harrisburg Area Community College. Nicole has proved over the course of the last seven months that she can balance her schedule and be successful in both her job and school responsibilities."

Baitsell has an associate degree in paralegal studies from HACC and is currently working on an associate degree in business studies, also at HACC, hoping to graduate from the program in the fall of 2007. She works in the intern operations division as a career services representative. As such, she is on the frontlines of support to the interns, helping to ensure their travel orders and personnel paperwork are processed in an expeditious manner.

The HACC-NACC partnership has been a win-win-win situation for all parties. HACC has successfully placed students in positions with excellent career potential, NACC has revitalized its workforce, and Ehlman and Baitsell have received support to continue their studies while



The Naval Acquisition Career Center used the student career experience program authority this summer to hire Nicole Ehlman and Amanda Baitsell. Both are learning jobs that help NACC support the almost 800 Naval acquisition interns homeported all across the country. From left: Dan Diviney, intern career management team leader; Nicole Ehlman, payroll technician; Amanda Baitsell, career services representative; and Scott Underkoffler, budget division head.
Photograph courtesy Naval Support Activity Mechanicsburg, Pa.

learning some valuable lessons about the workplace, especially time management.

"Through the SCEP program I have learned new responsibilities and skills that provide me with a sense of accomplishment. I am more goal-oriented and focused on my future. I look forward to completing my degree and moving forward with my career," Ehlman said of her experience.

"The student career experience program is an excellent tool to fill positions with current college students using an excepted appointment. It simplifies recruitment and provides for a quick and easy conversion to the competitive service upon completion of the educational program. Our partnership with HACC has been most fruitful and we are quite pleased," added Dan Diviney, NACC's intern career management team leader.

*Metts is director, Naval Acquisition Career Center, Naval Support Activity Mechanicsburg, Pa.*

## ARMY CIVILIAN LEADERSHIP OPPORTUNITIES

The Army's Acquisition Education, Training, and Experience (AETE) Catalog has just been updated. A new section in the catalog, Appendix B, identifies Army Civilian Leadership Opportunities for the AL&T workforce that may be of interest as Army civilians prepare for future leadership positions. Browse the 2007 catalog at < http://asc.army.mil/portal.cfm >.

## DEFENSE TECHNICAL INFORMATION CENTER (JAN. 22, 2007)
## NEWEST ADDITION TO DOD RESEARCH AND ENGINEERING PORTAL

FORT BELVOIR, Va.—The Defense Technical Information Center (DTIC) announced that a new product, the Community of Scholars (COS), has been added to the DoD Research and Engineering Portal < https://rdte.osd.mil >. A large interdisciplinary collection of searchable, verified, and regularly updated academic scholar profiles, COS is a tool for finding researchers by specific area of study.

COS offers authoritative information about more than 1 million scholars and organizations around the world. This new tool enables R&E Portal users to expand beyond the DoD research and engineering community and communicate with known and potential colleagues and collaborators in other disciplines and countries.

A joint effort of the Office of the Director, Defense Research and Engineering (DDR&E) and DTIC, the Portal is password-protected and provides single sign-on access to a wealth of current and historical DoD research and engineering information.

Access to the R&E Portal is limited to federal employees and federal contractors. To register go to < https://register.dtic.mil/DTIC >.

For more information, contact Sandy Schwalb at 703-767-8217 or sschwalb@dtic.mil.

## AIR FORCE MATERIEL COMMAND (JAN. 11, 2007)
## DEVELOPMENT PROGRAM COULD AID CIVILIANS WITH CAREER GOALS

*Steve McBride*

WRIGHT-PATTERSON AIR FORCE BASE, Ohio—With January signaling the beginning of a new year, resolutions tend to become a topic of discussion. Some of the more common ones include exercising more, eating healthier foods, and planning a better budget.

How many civilians in Air Force Materiel Command discuss resolutions regarding their careers? Since resolutions typically address an area for improvement, AFMC's workforce might consider making a resolution that could potentially further their career goals.

An existing tool that AFMC workers can tap into is the Civilian Career Development Program—Maintenance, or CCDP-Mx. It provides a roadmap of opportunities regarding the development of the Air Force's civilian workforce.

According to Ellen Griffith, the logistics directorate's depot operations chief at Headquarters AFMC, leaders will always be in demand, and the Air Force maintenance community is no different.

"There are currently numerous outstanding civilian leaders throughout the maintenance arena that contribute on a daily basis to meeting Air Force needs," said Griffith. "But the fact is, we need to maintain this strong foundation by growing the leadership trust of tomorrow today."

A detailed CCDP-Mx brochure was created to meet that need. It provides avenues to consider as civilians examine their 2007 career goals.

A closer look at the CCDP-Mx brochure may benefit those interested in the following:

- Encouragement to seek out training, education, career broadening, mentoring, and civic/professional activities
- Consideration for cross-functional movement
- Priming for leadership position
- Access to guides and resources to help along the way.

The CCDP-Mx brochure is available for downloading at < https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter = MC-LG-00-58 > . For AFMC employees at an air logistics center, the information is also available via the depot maintenance training office.

*McBride is with Air Force Materiel Command Logistics Directorate.*

## AMERICAN FORCES PRESS SERVICE (JAN. 24, 2007)
## ARMY'S "BLUE TO GREEN" PROGRAM HITS MILESTONE
*Samantha L. Quigley*

WASHINGTON—The Army's "Blue to Green" program, designed to allow airmen, sailors, and Marines affected by force shaping to move to the Army, recently hit a milestone, a Defense Department official said here today.

"Just in the past couple of weeks we've had our 1,000th transfer," Bill Carr, acting deputy under secretary of defense for military personnel policy, said in an interview.

An effect of the Air Force and Navy downsizing is fewer opportunities for airmen, sailors, and Marines to continue in their career fields, he said. The Army's Blue to Green inter-Service transfer program, open to officers and enlisted personnel, affords an alternative to leaving military service.

"That would be to serve as an officer or noncommissioned officer in the U.S. Army," Carr said. "I think the ones that are considering Blue to Green are the ones who are interested in trying another career and the challenges associated with it."

Army 2nd Lt. Michael B. Moore, a recent transfer, is a good example, Carr said. The former airman was an air battle manager trainee before trading his blue uniform for green. When Moore transferred to the Army, he chose to go into the infantry.

But that wasn't enough of a challenge for the newly minted soldier who has been assigned to the 82nd Airborne Division, at Fort Bragg, N.C., Carr said.

"[He] not only went over as an Army officer in the infantry, but also participated in the airborne and ranger training," he said. "He's really taking the full exposure and doing very well at it."

Carr said the program is good not only for the military, which retains experienced servicemembers through the Blue to Green program, but also for the servicemembers. It provides them a chance to look into options within the military before they consider the private sector, he said.

"For Blue to Green, the ideal future would be that anyone who was considering leaving the Service would first look to Blue to Green as they're looking at other options and consider what it has to offer," Carr said. "And it has a lot to offer."

More information, including guidelines and benefits of the Blue to Green program, can be found on the Army's Web site < www.army.mil >.

## AIR FORCE PRINT NEWS (JAN. 29, 2007)
## 36 GRADUATE FROM AFSO 21 CLASS AT UNIVERSITY OF TENNESSEE
*Capt. Lisa Godsey, USAF*

KNOXVILLE, Tenn.—Thirty-six military officers and civilians graduated from the first class of Level II Experts in Air Force Smart Operations for the 21st century Jan. 11 at the University of Tennessee.

The University of Tennessee was selected for the six-month training for "their depth and breadth of knowledge, and their willingness and ability to work with the military," said Keith Leitner, an AFSO 21 mentor and faculty member for the Center of Executive Education at UT.

The students were led by mentors, three of whom were from UT and three from the corporate world, selected for their knowledge and expertise in business and consulting.

Lt. Gen. Carrol H. Chandler, deputy chief of staff for Air, Space and Information Operations, Plans and Requirements, visited the students Jan. 8 and spoke to them about what the Air Force expects of them. He said these students have charted the Air Force path for process im-

provement, validated the training program, and became the program missionaries.

"You are the plank holders," Chandler said. "The Air Force has invested heavily in each of you, and we have great expectations."

He advised the students that as Level II Experts, people will "seek your counsel, watch your behavior, and listen to your every word."

The general stressed the differences between AFSO 21 and the old Quality Air Force concept. AFSO 21 focuses on results and continual process improvements by eliminating waste, he said, whereas QAF generated tasks to improve processes. Three focus points of the new program are organizational restructure, force shaping, and process efficiencies.

"We have to find ways of doing better with what we have, and with less effort," Chandler said.

AFSO 21's main goal is increased combat capability. Chandler reminded the group that to help the Air Force achieve this, they needed to remain focused on the five "North Stars"—people productivity, critical assets availability, agility and response time, energy savings, and safety.

"Everyone from the secretary on down understands why we have to do this," he said. We are coming to a new steady state. If we do not make the change, we run the risk of becoming an irrelevant force."

*Godsey is with 134th Air Refueling Wing Public Affairs.*

## AMERICAN FORCES PRESS SERVICE (FEB. 1, 2007)
## PROGRAM ATTRACTS NEXT-GENERATION INFO TECH PROFESSIONALS
*Jim Garamone*

**W**ASHINGTON—Information is the lifeblood of the military and the defense of the United States. To that end, the Defense Department is working to recruit the next generation of information technology professionals.

As part of the IT Job Shadow Day, the Pentagon hosted 39 students interested in IT from area high schools. "We need these young men and women to be a part of the career field," said Joyce M. France, director of DoD's Chief Information Officer Management Services direc-

torate. "We are looking for a lot of students and interns to come into the department."

Officials estimate that roughly 10,000 information technology civilian employees will be eligible to retire at the end of this year. "We have an aging workforce. We want to interest students in DoD, and we want to show them what type of jobs are here," France said.

Computer jobs are much more than simply working on hardware, she said. IT professionals are responsible for information assurance, building networks, helping users get what they need from databases, writing programs—"the full-range of jobs that are available to people in the field," France said.

Private industry can offer these young men and women more money, "but we have a lot of people, especially after 9/11, who want to come to the Department of Defense," France said.

Private industry also seldom offers new employees the scope and level of responsibility that DoD offers. France said that young men and women can be in charge of multimillion-dollar programs that have a direct impact on life and death in places like Iraq and Afghanistan.

Leaders from the DoD information technology community spoke to the young men and women about the environment inside the Department, the practical steps they need to take to be competitive, and the rewards of employment with the government. Officials told the students that while math and science knowledge is crucial to success in the IT field, they also need to study English to be able to clearly communicate with users and superiors.

Officials also took much of the mystery out of security clearances that young IT professionals need to work for the Department.

Young men and women often are attracted to the Department for the cutting-edge technologies they can work with, France said. "They could be working with (the National Security Agency) or working with the warfighting systems. In the systems we have, the information technology is embedded in them. Radios, satellites, looking for improvised explosive devices—in all of these areas information technology has a role, and that can be exciting to these students," France said.

Jonathon Glad, a senior at Thomas Edison High School in Alexandria, Va., said the presentation was interesting. Glad, 18, wants to join the Army after going through the Reserve Officer Training Corps (ROTC). He said the IT presentation convinced him there are opportunities in the military for his interests, and for him to make a contribution.

The IT Job Shadow program includes information technology professionals from 26 federal agencies. The group visiting the Pentagon visited the National Military Command Center and received briefings on scholarships, internships, and jobs in IT within the Department. While DoD has participated in the program in the past, this year is the largest effort, France said.

## ARMY NEWS SERVICE (JAN. 31, 2007)
### ARMY PROGRAM SENDS CADETS, COMPANY-GRADE OFFICERS TO GRADUATE SCHOOL

WASHINGTON—The Advanced Civil School Program is offering graduate school opportunities to junior and soon-to-be officers to enhance critical skills throughout the Army.

The two-pronged program targets pre-commissioning cadets attending the U.S. Military Academy or Reserve Officer Training Corps, and currently serving company grade officers with less than eight years of service.

"One of our focuses is to broaden the experiences of our officers through civilian education. If I can take an infantry officer and inculcate him with a graduate program that broadens his outlook on the world, I've got a better infantry officer," said Col. Mark Patterson, program director.

After drawing 270 cadet applications last academic year, 371 cadets have applied so far this year.

The program allows USMA and ROTC cadets in their senior years to apply, though they won't attend graduate school until after selection for captain, or between their sixth and 11th years of service after commissioning. When they attend graduate school depends on where the officers are with respect to their assignment cycles.

While the Army historically sends about 412 active duty officers a year to school, most of these are to support functional areas and to provide instructors to West Point. Through the Advanced Civil School Program, the Army is now sending an additional 200 officers who have six years of Army experience to graduate school. Most of the 200 allocations, Patterson said, are delegated down to brigade commanders who can identify the best candidates.

"Many master's degree programs value the experiences that company grade officers have to offer to the classroom," Patterson said. "Take a civilian executive officer and mix an Army officer in and you're cross-pollinating the knowledge that each brings to the academic environment.

"We're developing these officers to broaden their experience, to get them to think a little bit differently, see how the rest of the world thinks, and then put them back into the military," he added.

In addition to developing its officers, the Army hopes the program will help retain them. While retention of Army officers is well above the historical average, Patterson said, it's not enough to keep up with transformation and modernization.

"In order to grow the Army on the accelerated growth that we're seeing in core structure and the acceleration in the brigade combat teams, we need to retain more of our best and brightest," he said.

All applicants must agree to an increased active duty obligation before selection. Those selected may attend a U.S. accredited graduate school of their choice in key disciplines that support the officer skill set, such as cultural awareness, regional knowledge, foreign languages, governance, diplomacy, and social sciences. Discipline lists will be updated annually to ensure the Army keeps pace with the needs of the force and emerging fields of study.

Interested officers should speak to their commanders and contact their assignment officers at Human Resources Command. For more information, visit < https://www.hrc.army.mil/site/protect/Active/opfamacs/ACS14.htm >.

## AIR FORCE PRINT NEWS (FEB. 2, 2007)
### AFSO 21: ACHIEVING A SMARTER STAFFING PROCESS
*Masao Doi*

PETERSON AIR FORCE BASE, Colo.—Getting better and faster answers for decision makers was the goal for a team from Headquarters Air Force Space Command and the Space and Missile Systems Center at Los Angeles AFB, Calif., which met for an Air

Force Smart Operations for the 21st century Rapid Improvement Event Jan. 22 to 25.

Led by Lt. Col. Corey Keppler, AFSPC's deputy director of staff, the team, comprised of approximately 15 people, looked at ways to improve the tasking process at headquarters and across the command.

The tasking process is one way headquarters staff members obtain information to make decisions and respond to requests from other organizations.

"We're trying to shave time off the process," Keppler said. "If you get the tasker faster to the action officer who is going to have the answer, then you get the answer faster." And the answers can help Air Force and AFSPC senior leaders make better decisions.

"The intent is to promote timeliness with no loss in quality," said Maj. Gen. David Frostman, AFSPC's mobilization assistant to the commander and AFSPC's AFSO 21 program champion. Frostman said similar AFSO 21 efforts are going on throughout the command.

AFSO 21 is an Air Force initiative that challenges people to look at ways to accomplish the Air Force mission more effectively and efficiently while maintaining quality and safety standards.

"When we talk about AFSO 21, thinking outside the box should be the norm. We must constantly look at ways to save precious dollars, manpower, and time resources," said Col. Alvin Kemmet, AFSPC's director of staff and the Rapid Improvement Event process owner.

Keppler said the AFSPC team recommended providing taskers to action officers at the earliest opportunity and giving them more accountability throughout the tasking process.

Other recommendations included transitioning from sequential to parallel staffing and promoting reductions in rework of content and format. Sequential staffing moves information one person at a time, while parallel staffing means staff members receive information simultaneously.

"All of these changes have the potential to reduce process time as much as 75 percent," said Lt. Col. Thomas Peppard, the AFSPC AFSO 21 office chief.

A campaign to explain the recommended changes to the staffing process will start in February with briefings at HQ AFSPC, numbered air force, and center staffs.

Full implementation of a pilot program will begin March 1. The pilot program will look at measuring time savings and identifying areas for improvement.

"The pilot program will be the key to success of AFSO 21," said Frostman.

AFSPC leaders stress that continuous process improvement is a team effort by everyone in the command.

*Doi is with Air Force Space Command Public Affairs.*

## ACQUISITION CAREER MANAGEMENT INFORMATION SYSTEM (ACMIS)

ACMIS is a government-wide system, developed and managed by the Federal Acquisition Institute (FAI), to assist agencies in making informed budgeting, staffing, training, and employment development decisions. It also supports agencies' requirements to maintain training records of their acquisition workforce, as directed under the Clinger-Cohen Act.

If your agency is interested in implementing ACMIS and would like to schedule a presentation/demo, or if you have general questions about ACMIS, contact Sherry Booth at sherry_booth@sra.com or 703-284-6930. Send any technical questions about the system to the ACMIS Help Desk: acmis_help@sra.com.

## AIR FORCE PRINT NEWS (FEB. 7, 2007)
## AIR FORCE CONVERTS LARGEST GROUP OF CIVILIAN EMPLOYEES TO NSPS

WASHINGTON—The Air Force converted the largest group of civilian employees to the National Security Personnel System in its recent spiral.

NSPS is implemented in stages call "spirals." Spiral 1.2H conversion began Jan. 21. Approximately 26,000 employees converted, bringing the number of Air Force employees covered by NSPS to approximately 40,000 worldwide. The Air Force currently has the largest number of employees in NSPS of any Department of Defense component.

The next Spiral, 1.3, converts approximately 1,200 civilians on March 18 and will mark the completion of the initial phase of deployment of eligible Air Force GS non-

**The Air Force currently has the largest number of employees in the National Security Personnel System (NSPS) of any Department of Defense component.**

bargaining unit appropriated fund civilians. About 650,000 DoD civilian employees eventually will be covered by NSPS.

NSPS is part of DoD's transformation efforts to better meet 21st century challenges. It is a performance-based, results-oriented personnel management system. Pay under this system is linked to individual performance toward meeting organizational objectives and mission goals and administered through pay pools.

The preliminary results of the initial NSPS pay pool for Spiral 1.1 participants are in: 96 percent of Air Force participants scored at level three or above and were eligible for NSPS performance-based share payouts. All eligible employees also received the equivalent of the January pay increase received by the rest of the government.

Secretary of Defense Robert Gates affirmed his support of NSPS during his confirmation hearing. "Reforming civil service rules to make our civilian workforce more adaptable, flexible, and agile is critical to the future of the Department," Gates said. "I believe NSPS is integral to the Department's human capital strategy of developing the right mix of people and skills across the total force."

Information on classroom and auditorium training sessions that are being conducted throughout the Air Force is available from base NSPS implementation offices.

Those interested can subscribe to the Air Force NSPS Newsletter and view previous editions at the Air Force NSPS Web site < http://www.af.mil/library/nsps-af/index.asp >.

The DoD Web site < http://www.cpms.osd.mil/nsps/ > hosts the Web-based NSPS 101 course, in addition to other information. The DoD site also has NSPS Alerts. Once subscribed to this service, users will be notified whenever the DoD NSPS Web site is updated.

## Meet the AT&L Workforce

**Attention AT&L PEOs, PMs, Managers, and Supervisors**
Do you have an employee you'd like to see recognized in *Meet the AT&L Workforce*—someone who works behind the scenes to support your organization?
Send us the name, military rank (if appropriate), job title, defense agency/Service affiliation, and home or business mailing address, plus the employee's responses to the italicized questions above. Please include your own contact information, and spell out all acronyms. Profile responses may be edited.

Information may be e-mailed (preferably in a Word file) to defenseatl@dau.mil. We will contact you only if your nominee is selected for publication.

**Photographs**: Only submissions with photographs will be considered. A casual photograph, not a formal bio portrait, is preferred. Submit a high-resolution digital file (300 dpi with a final print size no less than 3 x 5 inches), or mail a traditional photo to the address on page 1. *Photographs cannot be returned.*

# Conferences, Workshops & Symposia

## DOD MODELING & SIMULATION CONFERENCE

The 2007 Department of Defense Modeling and Simulation Conference will be held at the Hampton Roads Convention Center, in Hampton, Va., May 7-11, 2007. The DoD M&S Conference is the premier conference bringing together government and military executives, strategic planners, and senior technical managers to enable the DoD M&S community to develop a common view of the state of M&S practice, expose members to the broader M&S community needs (shortfalls, issues, and challenges), and examine M&S gaps associated with policies, procedures, and practices within DoD. The conference also serves as an important forum for discussing and coordinating future plans, goals, and programs within the DoD M&S community. To register, go to < www.ndia.org > and click on "Schedule of Events." For more information, contact Heather Horan at hhroan@ndia.org or call 703-247-9490.

## 2007 STRIKE, LAND ATTACK & AIR DEFENSE ANNUAL SYMPOSIUM

The 2007 Strike, Land Attack & Air Defense (SLAAD) Annual Symposium will be held May 8, 2007, at Johns Hopkins University Applied Physics Laboratory. The 2007 theme of the conference is *Integration and Interoperability with Allies and Coalition Partners in Naval Warfighting*. This symposium is classified SECRET for U.S. participants only.

To register, go to < www.ndia.org > and click on "Schedule of Events." For more information, contact Kimberly Williams, kwilliams@ndia.org or call 703-247-2578.

## NATIONAL SMALL BUSINESS CONFERENCE

The National Small Business Conference will be held May 15-17, 2007, at the Hyatt Regency Houston, in Houston, Texas. Small business plays a vital role in our nation's defense industrial base, and the goal of this conference will be to assist small companies in identifying business opportunities in support of the missions of the Department of Homeland Security and Department of Defense. The conference will feature plenary session speakers with an overall conference theme of *Critical Infrastructure Opportunities*.

To register, go to < www.ndia.org > and click on "Schedule of Events." For more information, contact Meredith Geary at mgeary@ndia.org or call 703-247-9476.

## DAU AND NDIA TO SPONSOR DEFENSE SYSTEMS ACQUISITION MANAGEMENT COURSE OFFERINGS FOR INDUSTRY MANAGERS

DAU and the National Defense Industrial Association will sponsor offerings of the Defense Systems Acquisition Management (DSAM) course for interested industry managers at the following locations during fiscal 2007:

- May 7-11, 2007, Gaylord Opryland Resort & Convention Center, Nashville, Tenn.
- July 16-20, 2007, Red Lion Hotel on Fifth Avenue, Seattle, Wash.
- Sept. 10-14, 2007, Radisson Plaza Hotel, Minneapolis, Minn.

DSAM presents the same acquisition policy information provided to DoD students who attend the Defense Acquisition University courses for acquisition certification training. It is designed to meet the needs of defense industry acquisition managers in today's dynamic environment, providing the latest information related to:

- Defense acquisition policy for weapons and information technology systems, including discussion of the DoD 5000 series (directive and instruction) and the CJCS 3170 series (instruction and manual)
- Defense transformation initiatives related to systems acquisition
- Defense acquisition procedures and processes
- The planning, programming, budgeting, and execution process and the congressional budget process
- The relationship between the determination of military capability needs, resource allocation, science and technology activities, and acquisition programs.

For further information see "Courses Offered" under "Meetings and Events" at <www.ndia.org >. Industry students contact Phyllis Edmonson at 703-247-2577 or e-mail pedmonson@ndia.org. A limited number of experienced government students may be selected to attend each offering. Government students must first contact Bruce Moler at 703-805-5257, or e-mail bruce.moler @dau.mil before registering with NDIA.

## JOINT SERVICES ENVIRONMENTAL MANAGEMENT (JSEM) CONFERENCE

The Joint Services Environmental Management (JSEM) Conference will be held May 21-24, 2007, at the Greater Columbus Convention Center in Columbus, Ohio. JSEM 2007 is a comprehensive summit on the evolving world of environment, energy, and geospatial information within DoD. JSEM 2007 will highlight the many new and innovative ways the Department of Defense, other federal agencies, states, and the defense industry are meeting mission needs while protecting the environment. The conference affords the opportunity to share ways to integrate environment, energy, and geospatial information management into Defense operations. It also will address a wide range of perspectives, including policy, implementation, best management practices, data management, and technology.

The JSEM 2007 Conference and Exhibition is evolving, just as Defense business practices are evolving. Conference organizers are merging Energy and Geospatial Information Management into the 2007 event, which is now recognized as the most significant event for environmental policy makers, practitioners, and professionals. Register at < www.jsemconference.com/2007/registration.htm >.

## 2007 HOMELAND SECURITY SCIENCE & TECHNOLOGY STAKEHOLDERS CONFERENCE

The Science and Technology (S&T) Directorate of the Department of Homeland Security will be the key participant in the 2007 Homeland Security Science & Technology Stakeholders Conference, May 21-24, presented by the National Defense Industrial Association at the Ronald Reagan Center in Washington, D.C. The conference will inform the private sector, academia, and government at all levels, of the direction, emphasis, and scope of research investments by the S&T Directorate to support the Homeland Security mission. The S&T Directorate is the gateway into DHS for innovative ideas and technologies from the private sector and academia. The conference will highlight business opportunities in S&T research in the United States and around the world.

To register, go to < www.ndia.org > and click on "Schedule of Events." For more information, contact Luellen Hoffman at lhoffman@ndia.org or phone 703-247-9460.

## ANNUAL BUSINESS MANAGERS' CONFERENCE—ENABLING SMART BUSINESS DECISIONS

Mark your calendar for the annual Business Managers' Conference *Enabling Smart Business Decisions*. The conference will be held May 22-23, 2007, at the Defense Acquisition University, Howell Auditorium (Scott Hall), Ft. Belvoir, Va.

The Business Managers' Conference is a free conference supported by the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics and hosted by Dr. Nancy J. Spruill, the director for Acquisition Resources and Analysis. Targeted attendees include the DoD acquisition management workforce as well as members from the DoD financial management, cost estimating, and program analysis and evaluation communities. Defense industry personnel are welcome to attend.

For more information and to register, go to < http://bmc.dau.mil >. Check out past conferences at < www.dau.mil/conferences/Past_Conferences.asp >.

If you have questions, contact either Sharon Jackson at 703-697-5237 or sharon.jackson@osd.mil, or Joni Forman at 703-805-5308 or joni.forman@dau.mil.

## U.S. ARMY TEST AND EVALUATION WEEK 2007

Mark your calendars now to attend U.S. Army Test and Evaluation Week, June 11-15, 2007, at the Von Braun Center in Huntsville, Ala. Test Week 2007 will address joint capabilities/activities, net-centric requirements, distributed capabilities, training opportunities, a "scorecard" from program managers, and guest speakers/panelists returning from theater. Test Week 2007 is also broadening its scope to encompass the Coast Guard. Further information on registration and guest speakers will be posted online as it becomes available at < www.testweek.org >.

## FEDERAL ACQUISITION CONFERENCE & EXPOSITION (FACE)

The Federal Acquisition Conference and Exposition (FACE) will be held June 19-20, 2007, at the Ronald Reagan Building in Washington, D.C. The 2007 theme is *Acquisition Frontiers: Blazing New Trails*. This year's conference will offer new sessions for several members of the acquisition workforce and will provide "toolkits" for use back at the office. FACE will offer best practices and lessons learned for contracting professionals, program managers, contracting officer tech-

nical representatives, and acquisition career managers. Attendees will have an opportunity once again to earn continuous learning points, create important new relationships with team members, and gain insight from sessions exploring best practices, new acquisition human capital achievements, and how to make these work on the job. For more information, visit < www.fai. gov/face >.

## INTERNATIONAL COUNCIL ON SYSTEMS ENGINEERING (INCOSE 2007)

The International Council on Systems Engineering (INCOSE) will hold its International Symposium June 24-28, 2007, in San Diego, Calif. The theme *Systems Engineering: Key to Intelligent Enterprises* highlights the dramatic expansion of opportunities available to systems engineering practitioners. The symposium offers participants an opportunity to share their wisdom, experiences, and perspectives; and advance their ability to treat enterprises as systems and systems as enterprises. To register online, visit < www.incose. org > and click on "News & Events."

## LIVE FIRE TEST & EVALUATION CONFERENCE

The Live Fire Test & Evaluation Conference will be held June 25-28, 2007, at the SPAWAR Systems Center Charleston, located at Naval Weapons Station, Charleston, S.C. The conference will address issues related to the lethality of DoD's weapons systems, from small caliber munitions to missile defense. Lethality will be addressed within the operational context of increased precision of delivery and the desire to limit collateral damage.

This is a Classified Secret conference for U.S. citizens only. A Security Certification form must be submitted by June 15, 2007, in order to attend. Download the security and registration forms online at < www. ndia.org >; click on "Schedule of Events." Registration may also be faxed to 703-522-1885.

## STANDARDIZATION WITHIN NATO SCHEDULED FOR JULY 2007

*Latasha R. Beckman*

The International Cooperation Office, Defense Standardization Program Office, and North Atlantic Treaty Organization Standardization Agency will host the first Standardization within NATO Course in the United States July 10-12, 2007, in Chantilly, Va.

This course is an abridged version of pre-existing NATO standardization training, but tailored to meet the educational needs of a U.S. audience. It will consist of lectures and classroom exercises to provide training to military and DoD civilian personnel who require a fundamental knowledge of standardization and interoperability within NATO. Non-DoD federal government employees and defense contractors are eligible for this course depending on space availability.

Instruction will cover the structure and principles of the NATO standardization, Standardization Agreements, use of civil standards, and U.S. participation in the standardization process. Also, the responsibilities of Military Departments and Defense Agencies in the oversight of standardization activities will be addressed.

There is no charge for this course; but the attendee's organization is responsible for travel expenses. If you're interested in attending this course, please contact Latasha Beckman at 703-767-6872 or latasha.beckman@dla.mil.

*Beckman is a general engineer with the Defense Standardization Program Office.*

## 2007 NAVAL SCIENCE & TECHNOLOGY INDUSTRY PARTNERSHIP CONFERENCE

The 2007 Naval Science & Technology Industry Partnership Conference will be held July 30 through Aug. 2, 2007, at the Marriott Wardman Park Hotel in Washington, D.C. The agenda and conference information will be posted online as they become available at < www.ndia.org >; click on "Schedule of Events." For more information, contact Luellen Hoffman at lhoffman@ndia.org or phone 703-247-9460.

## LAND & MARITIME SUPPLY CHAINS BUSINESS CONFERENCE & EXHIBITION

The 2007 Land & Maritime Supply Chains Business Conference & Exhibition will be held Aug. 27-29, 2007, at the Hyatt Regency Columbus at the Greater Columbus Convention Center in Columbus, Ohio. The agenda and conference information will be posted online as they become available at < www.ndia.org >; click on "Schedule of Events." For more information, contact Meredith Geary at mgeary@ndia.org or phone 703-247-9476.

## INSENSITIVE MUNITIONS/ENERGETIC MATERIAL SYMPOSIUM

The 2007 Insensitive Munitions/Energetic Material Symposium will be held Oct. 15-18, 2007, at the Doral Golf Resort & Spa in Miami, Fla. Conference information will be posted online as it becomes available at < www.ndia.org > ; click on "Schedule of Events." For more information, contact Veronica Allen at vallen@ndia.org or phone 703-247-9478.

## 10TH ANNUAL SYSTEMS ENGINEERING CONFERENCE

The 10th Annual Systems Engineering Conference will be held Oct. 22-25, 2007, at the Hyatt Regency Islandia Hotel and Marina in San Diego, Calif. The primary objective of the conference is to provide insight, information, and lessons learned into how DoD can improve the overall performance of defense programs through a better, more focused application of systems engineering that will lead to more capable, interoperable, and supportable weapon systems for the warfighter, with reduced total ownership costs.

The agenda and conference information will be posted online as they become available at < www.ndia. org > ; click on "Schedule of Events." For more information, contact Britt Bommelje at bbommelje@ndia.org or call 703-247-2587.

## PRECISION STRIKE ASSOCIATION 17TH ANNUAL PRECISION STRIKE TECHNOLOGY SYMPOSIUM

The Precision Strike Association will sponsor the 17th Annual Precision Strike Technology Symposium Oct. 23-25, 2007, at Johns Hopkins University Applied Physics Laboratory-Kossiakoff Conference Center in Laurel, Md. The 2007 theme is *Required Precision Strike Capabilities and Technologies for the Long War*.

Effective precision strike demands a timely and effective kill chain to some of the most important targets, which are, in Dr. Paul Wolfowitz' words, "the ones that move around, staying put for only short periods." This year's event continues to provide a forum for exchanging insights, experiences, and ideas regarding Joint and Coalition Precision Strike Technologies to improve the kill chain. It also uniquely offers participants the opportunity to present to one's peers the latest and cutting-edge research and thinking in areas of strike weapons, desired weapons effects, targeting, and required C4ISR. Surveys from past symposia reflect that updates on current and kill chain technologies, concepts, capabilities, and processes for both near and future planning and operations are exactly what symposium participants desire.

Watch the Precision Strike Association Web site < www.precisionstrike.org/events.htm > for future updates and registration information.

## 45TH ANNUAL TARGETS, UAVS & RANGE OPERATIONS SYMPOSIUM & EXHIBITION

The 45th Annual Targets, UAVs & Range Operations Symposium & Exhibition will be held Oct. 29-31, 2007, at the Hyatt Regency Islandia Hotel and Marina in San Diego, Calif. The agenda and conference information will be posted online as they become available at < www.ndia.org > ; click on "Schedule of Events." For more information, contact Simone Baldwin at sbaldwin@ndia.org or call 703-247-2596.

## DARPA ANNOUNCES THIRD GRAND CHALLENGE

The Defense Advanced Research Projects Agency (DARPA) has announced plans to hold its third "Grand Challenge" competition on Nov. 3, 2007. The DARPA Urban Challenge will feature autonomous ground vehicles executing simulated military supply missions safely and effectively in a mock urban area. Safe operation in traffic is essential to U.S. military plans to use autonomous ground vehicles to conduct important missions. DARPA will award prizes for the top three autonomous ground vehicles that compete in a final event where they must safely complete a 60-mile urban area course in fewer than six hours. First prize is $2 million, second prize is $500,000, and third prize is $250,000. To succeed, vehicles must autonomously obey traffic laws while merging into moving traffic, navigating traffic circles, negotiating busy intersections, and avoiding obstacles. The DARPA Grand Challenge Web site < www.darpa.mil/grandchallenge > is the primary resource for information about the Urban Challenge event.

# Acquisition & Logistics Excellence

## PM TEAM PROVIDES ARMY'S FIRST-EVER STRATEGIC SHELTERIZED TECH CONTROL FACILITY IN IRAQ IN LESS THAN SIX MONTHS

*Stephen Larsen*

**F**ORT MONMOUTH, N.J.—Project managers will tell you that in any given project you can have two out of three when choosing between the variables of cost, schedule, and performance. If you implement your project quickly and want high performance, you can't have it cheap. Or if you want it cheap and still want high performance, it will take some time. And so on. Three out of three? Forget about it—can't be done.

Yet the product manager, Defense Wide Transmission Systems (PM DWTS)—part of the Army's Program Executive Office, Enterprise Information Systems' (PEO EIS) Project Manager, Defense Communications and Army Transmission Systems (PM DCATS)—achieved three out of three leading a multi-organization government and industry team in providing a strategic shelterized technical control facility for the Army at Contingency Operating Base (COB) Speicher, Iraq, in less than six months and implemented the project so cost-effectively that there was money left over from the $12.1 million funded for the effort. Officials estimate that to construct a building with the same capabilities would have cost $30 million-plus and taken more than a year and a half.

The tech control facility comprises four 30-ft transportable shelters—three housing communications equipment and one housing a backup generator and uninterruptible power supply (UPS)—and provides Tier 1 Internet protocol connectivity to the Nonsecure Internet Protocol Router Network (NIPRNET), the Secret Internet Protocol Router Network (SIPRNET), and the Combined Enterprise Regional Information Exchange System (CENTRIXS), with transmission connectivity through Deployable Ku-Band Earth Terminals (DKETs).

Lt. Col. Clyde Richards, the PM DWTS, said the new facility significantly increases the C4 (command, control, communications, and computers) capability for warfighters at COB Speicher, relieves the use of tactical units from performing signal functions, and is an "innovative solu-tion" in that it is transportable and reusable at other locations—the first time an Army project manager has provided a shelterized strategic tech control facility.

"The Air Force has done this before (provided shelterized tech control facilities)," said Richards, "but they were unable to provide a shelterized configuration in time for Speicher's IOC (initial operational capability) date of Dec. 31, 2006, because there was a six-month lead-time just to order and deliver the ISO (International Organization for Standardization) shelters"—not to mention the additional six or more months it would have taken to install and integrate the communications equipment in the shelters.

### Failure is not an option

After being tasked in late June 2006, PM DWTS simultaneously worked with the 335th Theater Signal Command (TSC) to validate the requirements and called together a team of government organizations and industry partners, asking them how they could meet the requirements in less than six months—Richards impressing upon them that there was no time to underplay problem issues and assume they could fix them later—the Dec. 31 IOC date allowed no time for that.

"I told them this is real-world, supporting the war effort," said Richards. "I said, 'Tell me the real issues now—don't tell me midstream. We have got to succeed—failure is not an option. Period.'" In fact, team members agree that Richards stressed that so much that "Failure Is Not An Option" became their mantra throughout the project.

Richards personally took this message all the way up the leadership chains of industry partners Computer Sciences Corporation (CSC), General Dynamics C4 Systems (GDC4S), Protean Shelter Solutions, and the U.S. Army Information Systems Engineering Command, (ISEC), which would provide engineering support and quality control.

"It was crucial that we got buy-in up front for what was expected," said Richards. "To succeed, everybody had to believe in what we were doing and do their part."

And the industry partners did indeed buy in to what they needed to accomplish and to the idea that "Failure Is Not an Option."

A worker watches the digging for the grounding ring outside one of the four 30-ft transportable shelters that make up the Tech Control Facility at Contingency Operating Base (COB) Speicher, Iraq.
*Photograph by Cory Hanes*

"In our first meeting, if Lt. Col. Richards said that once, he said it 15 times," said Gordon Thomas, prime contractor CSC's project manager for the effort. "I got the message and took it back to our folks, and 'Failure Is Not an Option' became our mantra or motto too."

Richards credits CSC for proposing and devising the innovative shelterized tech control facility solution, using non-ISO commercial off-the-shelf shelters, that would not only meet the Dec. 31 IOC date, but that also cost some $2 million less than the only other alternative, retrofitting rooms in an old and worn-down confiscated Iraqi building at COB Speicher. Thomas called the solution the brainchild of Harry Aderton, CSC's project leader.

Senior Army leadership was concerned about using other than ISO-certified shelters, Richards added, but said that they understood the need to improvise given the time constraint and the potential for cost avoidance. Richards also stressed that since these shelters were supporting a strategic, rather than tactical requirement, there really wasn't a need to meet all of the specifications for a tactically deployable ISO shelter. "There are some minor tradeoffs in transportability and durability, but the non-ISO shelters can be transported on common military aircraft (such as C130s and C5s) and handled using standard military lift, such as Terex and cranes," he said.

Richards said Linda Bartosik, PM DWTS' Iraq team leader did a superb job in assembling and leading an integrated product team (IPT) including members from ISEC, CSC,

GDC4S, Protean Shelter Solutions, Piril Insaat Ticaret Ve Bilgis, the Multi-National Force - Iraq, the 335th Theater Signal Command, the 160th Signal Brigade, the 72nd Signal Battalion, the 67th Signal Battalion, the 136th Signal Battalion, COB Speicher's Department of Public Works and Mayor cell and, very importantly, PM DWTS' sister-PM within PEO EIS—the Product Manager, Defense Communications Systems-Southwest Asia (PM DCS-SWA)—which provided outside plant, inside plant, data and voice networks, and even trailers for living quarters.

"Formulating that integrated product team from the outset—that really was the key," said Richards. "We had all the key players up front, they understood their roles, knew the constraints, that there was very little slack, and that almost every task was on the critical path. Linda did a great job getting all those people together and getting them to understand their roles."

Richards also stressed that the effort was a dual-PM project between PM DWTS and PM DCS-SWA.

"Despite both PMs having our own set of contractors, engineers, and disparate business processes, we worked seamlessly," said Richards, "fully synchronizing the schedule and reporting and presenting a single face to the customer."

The shelters reached COB Speicher on Dec. 5, where the team worked the on-site installation and testing around the clock to meet the Dec. 31 IOC date.

### Teaming is everything

Bartosik explained the success best by pointing to a briefing chart she uses that includes the names of more than 50 IPT members from more than a dozen organizations.

"We put together a team that couldn't fail," said Bartosik. "When it comes to being successful, teaming is everything. You've got to be in this mindset or you don't succeed."

But the most important kudo came from the customer in an e-mail from Maj. Gen. Dennis Lutz, commander of the 35th TSC, who wrote to Richards: "Congratulations. I didn't give you any wiggle room on this and you came through. Great work by you and your team."

To Richards, maybe the most significant aspect of the project was that PM DWTS successfully applied the Army's acquisition model to a commercialized strategic communications implementation in a war-zone environment.

"The acquisition model is not designed to work in that type of environment," said Richards. "It was designed for developing weapon systems in a safe, industrial environment. We took that model, used our expertise and knowledge of the acquisition business process—contracting methods and laws, how the bureaucracy works, how to get through red tape, and a little ingenuity—applied it to the battlefield environment, and developed a modified process that worked."

Bartosik cautions, though, that the team can't rest on the laurels of its IOC success, as it needs to work post-IOC issues, such as finishing the grounding around the DKET pads, providing a ballistic shield over the shelters and putting a fence around COB Speicher's land mobile radio site—Speicher's land mobile radio system is being provided by another PM DCATS PM, the Assistant Project Manager, Land Mobile Radio (APM LMR). Plus, there will be FOC issues to address, which will involve cutover and migration of end users to the networks.

"We are not done yet," Bartosik said. "We have to supply the same amount of dedication to post-IOC issues and to achieving final operational capability that we did to IOC—managing the contracts, cost, and schedule. So that's a concern of mine to keep the diligence going."

*Larsen is media contact for PM DCATS. Contact him at 732-427-6756 or e-mail Stephen.Larsen@us.army.mil.*

## DEFENSE CONTRACT MANAGEMENT AGENCY (DEC. 28, 2006)
### DEFENSE CONTRACT MANAGEMENT AGENCY SOLDIER RECEIVES BRONZE STAR

*Mark Woodbury*

ALEXANDRIA, Va.—For "exemplary leadership and service" provided during his service in Iraq, Army Lt. Col. Kelvin R. Wood was awarded a Bronze Star at the Defense Contract Management Agency headquarters, Dec. 11.

During his tour in Iraq, Wood served as the deputy commander of DCMA Iraq where he was responsible for ensuring proper life support for U.S. and Coalition forces throughout Iraq while also providing leadership guidance to three subordinate commanders.

Being in a war zone has its own built-in obstacles, but Wood said it also brings logistical challenges he usually doesn't have to face on a daily basis. This challenge was never more real to him than on the day he had to coordinate a network of fuel suppliers to compensate for fuel trucks that were hijacked by insurgents, he said.

Not only was getting the needed trucks and fuel much more difficult then it is in the United States, but working with security authorities to ensure the safety of the contracted drivers and getting them cleared to pass security checkpoints along the route made the task all the more difficult.



Keith D. Ernst, DCMA acting director, awards Army Lt. Col. Kelvin R. Wood, DCMA General Dynamics commander, a Bronze Star for his service in Iraq at DCMA headquarters, Dec. 11. *Photograph by Dianne Ryder*

Another new challenge he discovered in Iraq was understanding the total environment—to include tactical, political, and security considerations—and how to make logistical decisions considering all these points.

"Ensuring contractors were able to provide the necessary support across the country with as little disruption as possible, and to the standard contracted for by the procuring contracting office, was difficult at times," he said. "We were consistently challenged by statutory, policy, and regulatory constraints on the type of support the contractors could provide in a wartime environment."

Having served in Iraq with DCMA, Wood said the idea of being a combat support agency is now ever more "punctuated" in his mind.

"It was clear that without DCMA directly serving in-theater, the tens of thousands of servicemembers and civilians would never have gotten the level of support that they deserved, and what the taxpayers expect, for the money expended on life support," he said. "Therefore, DCMA's role is absolutely critical to ensuring the best quality of life possible for those serving in harm's way."

Keith D. Ernst, DCMA acting director, said Wood's receipt of the Bronze Star reflects the outstanding leadership he brings to the agency and the caliber of people who work for DCMA.

"It was an honor for me to present him with the Bronze Star and to be a part of his very special event," said Ernst. "Lieutenant Colonel Wood represents all the brave DCMA folks who are serving, or have served, in harm's way in support of the global war on terrorism."

After receiving the Bronze Star, Wood shifted the spotlight to recognize the efforts of DCMA military members and civilians he served with while in Iraq.

Wood then thanked his wife and daughter who he said, "were very instrumental in supporting me by e-mail, periodic phone calls, and sending support packages from home with all sorts of things that reminded me of what we are fighting for."

Wood has returned to serving as the commander of DCMA General Dynamics in Pittsfield, Mass.

*Woodbury is with DCMA Congressional and Public Affairs.*

## ARMY NEWS SERVICE (FEB. 2, 2007)
## SOLDIERS TESTING FCS TECHNOLOGY GIVE THUMBS UP

WASHINGTON—The Army completed the first live-fire exercise, Experiment 1.1, involving Future Combat Systems technologies and equipment at the Oro Grande Range at Fort Bliss, Texas, yesterday.

The exercise is the first step in accelerating the delivery of key FCS capabilities to current force soldiers, and part of the most comprehensive Army modernization effort in more than half a century.

A platoon of 36 soldiers tested such FCS technology as Urban and Tactical Unattended Ground Sensors and unmanned vehicles designed to clear roads and buildings, as well as detect persons and objects that may enter a building occupied by soldiers. Robotics and unmanned vehicles help clear buildings without sending actual soldiers inside.

"With the Future Force Warrior Individual Ground System, every soldier knows where their fellow soldier is, even if they're not next to them," said Sgt. 1st Class Richard Haddad, Future Combat Systems, Evaluation Brigade Combat Team. Another advantage of the FFWIGS is the ability of the platoon leader and the platoon sergeant to locate all their soldiers on their screen and communicate with them by radio.

"Soldiers won't have to wait for someone to send them the information. Every soldier will have the ability to listen to real-time information on the radio so he can anticipate the next move. He stays informed, that means he stays alert." Haddad said.

The unattended ground sensors are part of the first FCS spin-out to begin in 2008. Spin-Out 1 also includes an early version of the FCS Network and the Non-Line-of-Sight Launch System, also tested yesterday. The NLOS-LS gives the Army a highly deployable, long-range precision attack capability with a much-reduced logistical footprint for faster and more sustainable deployments.

"The new technology we have is going to save a lot of lives," said Sgt. 1st Class Andres Rugerio, FCS, EBCT. "That's the thing we're impressed about."

Experiment 1.1 had three phases. Phase 1 involved hardware and software integration and networking and systems interoperability testing in a laboratory environment

at Huntington Beach, Calif. Phase 2 involved interoperability testing of various FCS systems in a more realistic, joint operational environment with more than a dozen soldiers at Fort Bliss.

"The future is now," FCS Program Manager Maj. Gen. Charles Cartwright said yesterday. "Networked soldiers already are using early FCS systems; and we're getting invaluable soldier feedback about what works and what needs improving. Today's exercise is further confirmation that the FCS program is working as planned."

Yesterday's live-fire exercise will help ensure that the new technologies tested are sufficiently mature and suitable for the current operational environment. Results of the exercise and the soldiers'



A soldier (left) from the Future Combat Systems, Evaluation Brigade Combat Team, views his screen for unforeseen obstacles during an exercise and live demonstration Feb. 1 at Oro Grande Range, Fort Bliss, Texas.                     *Photograph by Maj. Deanna Bague, USA*

feedback will inform subsequent program development, according to Cartwright.

The FCS program has delivered more than five million lines of software code and several pre-production prototype systems on cost and on schedule.

*Maj. Deanna Bague from the Fort Bliss Public Affairs Office contributed to this story.*

## NAVY NEWSSTAND (FEB. 4, 2007)
## NAVY SECRETARY ANNOUNCES AWARD FOR MILITARY SEALIFT COMMAND CONTRACTING TEAM
*Tim Boulay*

**W**ASHINGTON—Secretary of the Navy Donald C. Winter announced Feb. 1 that a Military Sealift Command (MSC) contracting team won a 2006 Navy Competition and Procurement Excellence Award for chartering ships to rescue Americans stranded in Lebanon last year.

The team—Ken Allen, Lee Anderson, Olivia Bradley, Tim Pickering, Lance Nyman, and Dan Wentzell—worked with companies and brokers from around the world to ensure that more than 6,700 Americans were rescued and moved from war-torn Lebanon to safety in Cyprus during the July 2006 Israeli offensive against Hezbollah militants.

Though U.S. military ships also took part in the effort that eventually rescued more than 13,000 people, the MSC-chartered cruise ship *Orient Queen* was the first to arrive in Lebanon. MSC chartered a total of three ships for the operation.

"When you know that American lives are at stake, you just remain focused to get the job done," said Bradley. "I'm pleased to have had a role in such an important mission."

In his message, Winter extended his personal congratulations and noted that "the outstanding performance by all personnel involved in the acquisition process is greatly appreciated."

MSC operates approximately 110 noncombatant, civilian-crewed ships that replenish U.S. Navy ships, chart

ocean bottoms, conduct undersea surveillance, strategically pre-position combat cargo at sea around the world, and move military equipment and supplies used by deployed U.S. forces.

For more news from around the fleet, visit < www.navy.mil >.

*Boulay is with Military Sealift Command Public Affairs.*

## ARMY NEWS SERVICE (FEB. 5, 2007)
## ARMY PICKS TOP ENVIRONMENTAL PROGRAMS

*Deborah Elliott*

WASHINGTON—Six installations, one team and one individual, have been declared winners in the fiscal 2006 Secretary of the Army Environmental Awards. The awards honor the Army's top programs in endangered species protection, historic preservation, waste reduction, environmental cleanup, and pollution prevention.

Installation winners are Fort Lewis, Wash., Fort Drum, N.Y., Fort Riley, Kan., Letterkenny Army Depot, Pa., Camp Edwards Training Site, Mass., and U.S. Army Garrison Grafenwoehr, Germany. The team award went to Radford Army Ammunition Plant, Va., and Karstin Carmany-George of the Indiana National Guard took the individual award.

"The Army is a good steward of the environment, and we are committed to the long-term sustainability of the natural resources in our care," said Tad Davis, deputy assistant secretary of the Army for the environment, safety and occupational health.

"As the winners of our environmental awards so aptly demonstrate, the Army uses innovation, dedication, and hard work to achieve a successful interaction of our military mission with sound environmental stewardship and community involvement," Davis said.

Fort Lewis won the award in the Pollution Prevention, Non-industrial Installation category for reusing lumber and other resources from building deconstruction to make improvements to training facilities. The program offers a model for others to follow, said awards panel judge Bob Donaghue.

"The Army, particularly the Fort Lewis comprehensive deconstruction program, is pioneering a money-saving idea that is transferable across both the private and public sectors," said Donaghue, director of the Pollution Prevention Assistance Division in the Georgia Department of Natural Resources.

Radford Army Ammunition Plant, one of the Army's main TNT production facilities, won the award for Pollution Prevention Team. Carmany-George took the Cultural Resources Management, Individual category by using technology to manage and preserve cultural resources and support the building of a state-of-the-art urban training complex.

The Army National Guard at Camp Edwards Training Site won the Natural Resources Conservation, Large Installation award for its robust training program that benefits 11 natural plant and animal communities.

The U.S. Army Garrison Grafenwoehr won the award for Environmental Quality, Overseas Installation, in part for its efforts to give soldiers more room to train.

"This project demonstrates that the innovative use of science can allow high-impact training activities to be conducted in harmony with a high-quality natural environment," said Tom Easterly, judge and commissioner of the Indiana Department of Environmental Management.

Letterkenny Army Depot won the Environmental Quality, Industrial Installation award by applying lean manufacturing methods as it delivered almost 900 reinforced armor humvee door kits to soldiers in Iraq.

To win the Cultural Resources Management, Installation award, the Fort Drum cultural resources staff constructed mock Muslim cemeteries and archeological sites for use as aerial gunnery avoidance target training.

The Fort Riley environmental staff helped make land available for a Tactical Unmanned Aerial System operational area, earning the Environmental Restoration, Installation award.

Winners of the Secretary of the Army awards go on to compete for the Secretary of Defense Environmental Awards.

*Elliott is with U.S. Army Environmental Command.*

## AIR FORCE GENERAL RECEIVES ANALYSIS AWARD

**W**ASHINGTON—The Air Force Heritage to Horizons focus was highlighted recently when the Air Force vice chief of staff received the Lt. Gen. Glenn A. Kent Leadership Award.

Gen. John D.W. Corley was recognized for his long-term vision and leadership in guiding the Air Force to set the standard for Department of Defense analyses.

Corley is the fourth recipient of the award, which recognizes leadership for the analytic community. Previous award recipients include retired Gen. Larry D. Welch, the former Air Force chief of staff.

As a young officer, Corley served as a combat analyst in the Headquarters Air Force Studies and Analyses branch, which was responsible for building the modeling and simulation foundation that defined the Service's next-generation fighters. Following the air war over Serbia, he served as director of studies and analysis at U.S. Air Forces in Europe, developing the lessons learned report for the Air Force.

Dr. Jacqueline Henningsen, director for Studies and Analyses, Assessments and Lessons Learned at the Pentagon, said she can't imagine a better recipient for this award.

"Based on his background, General Corley understands the role of unbiased analytic fireproofing and ensures our community is a vital part of the decision process," she said.

The award is named after Lt. Gen. Glenn A. Kent, who retired in 1974 after serving as the director of the Weapons Systems Evaluation Group, under the direction of the Defense Research and Engineering for the Office of the Secretary of Defense. This followed his assignment as assistant chief of staff, Air Force Studies and Analysis.

Kent, among other accomplishments, is known as the father of the "Strategy to Task" defense analysis approach that is still in use today and is still considered among the premier military analytical thinkers of all time.

Ever since the first days of the Army Air Corps, the Air Force analytic community has provided operational warfighting assessments, force structure recommendations, emerging issue analysis, and the application of



Gen. John D.W. Corley, USAF, Air Force Vice Chief of Staff, is the recipient of the Lt. Gen. Glenn A. Kent Leadership Award. The award recognizes leadership for the analytic community.
*DoD Photograph*

lessons learned. The analysts provide insight enabling Air Force leadership to make informed decisions.

Corley said his father, a B-17 pilot in World War II, depended on the strategic bombing information provided by analysis pioneers of that time.

Henningsen said she sees a lot of similarities between Kent's era of service and the one Corley serves in today.

"While our nation was facing the Cold War and the Vietnam conflict," she said, "General Kent contributed critical thought and sound analysis to help convince leaders that a single command with an integrated operations plan should be responsible to organize and employ our strategic forces. His visionary concepts laid the way to the end of the Cold War two decades later."

Henningsen concluded that "leaders like General Corley and General Kent compel us to think logically as well as to study the lessons experienced by those before us—how they prevailed, adapted, and modernized. These insights can help us maintain a competitive edge over our foes now and in the future."

# AT&L Workforce— Key Leadership Changes

## GENERAL OFFICER ANNOUNCEMENTS

Secretary of Defense Robert M. Gates announced today that the president has made the following nominations:

Air Force Reserve Brig. Gen. Stephen P. Gross has been nominated to the grade of major general while serving as mobilization assistant to the commander, Aeronautical Systems Center, Air Force Materiel Command, Wright-Patterson Air Force Base, Ohio.

Air Force Reserve Brig. Gen. Bradley C. Young has been nominated to the grade of major general while serving as mobilization assistant to the director, Maintenance and Logistics, Air Combat Command, Langley Air Force Base, Va.

## DEPARTMENT OF DEFENSE NEWS RELEASE (JAN. 17, 2007)
## GENERAL OFFICER ANNOUNCEMENTS

Secretary of Defense Robert M. Gates announced today that the president made the following nominations:

Marine Corps Brig. Gen. Frank A. Panter Jr. has been nominated for appointment to the grade of major general. Panter is currently serving as the assistant deputy commandant for Installations & Logistics (Plans), Washington, D.C.

Marine Corps Brig. Gen. Robert E. Schmidle Jr., has been nominated for appointment to the grade of major general. Schmidle is currently serving as the deputy director for Resources and Acquisition, J-8, Joint Staff, Washington, D.C.

## DEPARTMENT OF DEFENSE NEWS RELEASE (JAN. 19, 2007)
## FLAG OFFICER ASSIGNMENTS

Chief of Naval Operations Adm. Mike Mullen announced the following flag officer assignment:

Rear Adm. (lower half) Charles H. Goddard is being assigned as program executive officer for ships, Washington, D.C. Goddard is currently serving as vice commander, Naval Sea Systems Command, Washington, D.C.

## DEPARTMENT OF DEFENSE NEWS RELEASE (FEB. 15, 2007)
## GENERAL OFFICER ANNOUNCEMENTS

Secretary of Defense Robert M. Gates announced that the president has nominated: Maj. Gen. Jeffrey A. Sorenson, U.S. Army, for appointment to the rank of lieutenant general and assignment as chief information officer/deputy chief of staff, G-6, U.S. Army, Washington, D.C. He is currently serving as deputy for Acquisition and Systems Management, Office of the Assistant Secretary of the Army (Acquisition, Logistics and Technology), Washington, D.C.

## DEPARTMENT OF DEFENSE NEWS RELEASE (FEB. 23, 2007)
## GENERAL OFFICER ASSIGNMENTS

Air Force chief of staff announces the assignments of the following general officers:

Maj. Gen. Loren M. Reno, vice director, Defense Logistics Agency, Fort Belvoir, Va., to commander, Oklahoma City Air Logistics Center, Air Force Materiel Command, Tinker Air Force Base, Okla.

Maj. Gen. David M. Edgington, director, Global Power Programs, Office of the Assistant Secretary of the Air Force for Acquisition, Pentagon, Washington, D.C., to director, Air Component Coordination Element, Multi-National Force-Iraq, Air Combat Command, Baghdad, Iraq.

Maj. Gen. Mark D. Shackelford, director, Plans and Requirements, Headquarters Air Force Space Command, Peterson Air Force Base, Colo., to director, Global Power Programs, Office of the Assistant Secretary of the Air Force for Acquisition, Pentagon, Washington, D.C.

## DEPARTMENT OF DEFENSE NEWS RELEASE (FEB. 27, 2007)
## FLAG OFFICER ANNOUNCEMENT

Secretary of Defense Robert M. Gates announced today that the president has made the following nomination:

Navy Reserve Capt. Robin R. Braun has been nominated for appointment to the grade of rear admiral (lower half) while serving as commanding officer, Navy Air Logistics Office, New Orleans, La.

# From Our Readers

## Program Manager Competencies

I read the two articles that mention PM competencies (Kroecker, "Developing Future Program Leaders," and Turk, "21st Century Project Management Competencies," in the January-February issue of *Defense AT&L*. I was surprised that neither article mentioned the Project Management Institute's "Project Manager Competency Development Framework," which is currently being revised.

The "PMCD Framework" provides a framework for the definition, assessment, and development of project manager competence. It defines the key dimensions of competence and identifies those competencies that are most likely to impact project manager performance. The degree of its impact on project success may vary, depending on factors such as project types and characteristics, or organizational context and maturity. The competencies identified by the PMCD Framework have a broad application.

The PMCD, Second Edition, is currently under review by PMI volunteers.

George Jackelen
Senior Systems Engineer
Global Analytic IT Services (GAITS)

## Exposing the Sins of Memory

I enjoyed Col, Haraburda's article "The 'Seven Sins of Memory'" in the January - February issue very much. What an important topic, but this is the first article I can recall ever reading on it.

Among the many good points the author made touched upon one of my most serious concerns: a growing lack of discipline in summarizing and issuing minutes at the end of meetings. To have people walk away from a meeting with differing recollections of what happened, what was said, and what was decided can be disastrous for a project. I realize people are very busy, but—as Haraburda points out, it's a very bad idea to skip this critical activity.

Thanks to Col. Haraburda for sharing this important facet of decision-making with readers.

Al Kaniss
Naval Air Systems Command

## Distinguishing Between Experiment and Demo

On page 4 of the interview in the January-February 2007 *Defense AT&L,* Dr. Lewis makes a much-needed distinction between Experiment and Demonstration. What a great concept! I am now wondering if the pressure we place on contractors to succeed results in our seeing only the end product (demo), and we all lose the value of seeing the results of the experiments prior to the building of the demo. By not seeing the data from those experiments, we are far less capable of stretching the envelope on the next set of requirements being written.

I, as a skeptic, also wonder if the contractor sometimes may be forced to avoid the expense incurred by a full set of experiments and to drive their people to provide the expedient answer (demo) as opposed to the less-than-robust answer that a full-scale set of experiments would possibly provide to us as PM, customer, and taxpayer.

Pat Murphy
Technical Advisor
17th Test Squadron, Det 2

# AIR UNIVERSITY DEBUTS STRATEGIC PUBLICATION, SEEKS ARTICLES

**M**AXWELL AIR FORCE BASE, Ala. (Jan. 31, 2007)—Air University officials have announced the debut of a publication that will serve as a forum for the critical examination of and debate about contemporary national defense topics. They are inviting authors to share their perspectives on strategic issues in today's headlines.

Topics of discussion within the pages of the new *Strategic Studies Quarterly* will range across the spectrum of warfare, strategy, national security, international and defense policy, and academic issues.

Calling it a "journal of ideas," Editor-in-chief Dr. Chris Cain said *Strategic Studies Quarterly* is geared to serve the greater defense and academic communities by exploring significant subjects of current and continuing interest to the U.S. Air Force and Department of Defense.

The publication will expand the discussion of policy matters and serve as a conduit to establish a conversation between members of those communities, Cain said.

"It will add to the existing quantity and quality of informed opinions," he said. "Thus, our senior military and civilian leaders and those who work for them will be better equipped to make sound decisions."

Military and civilian members from all Services, policy makers across all government agencies, and members of academia can contribute articles to the quarterly. Deadline to submit articles for consideration for the inaugural September issue is May 1.
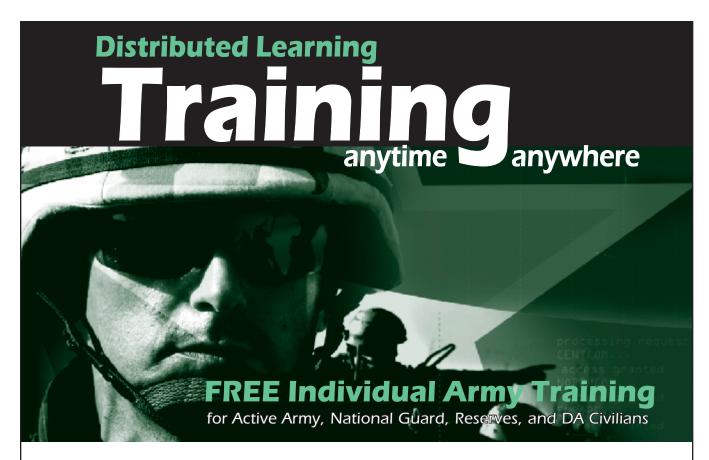
Initially, *Strategic Studies Quarterly* will be available in print to senior leaders, Air Force organizations, professional military education schools and military libraries. Circulation will be 7,000 to 10,000 copies. An electronic subscription service is planned.

Contributing authors can e-mail their 5,000- to 15,000-word articles for consideration to strategicstudiesquarterly@maxwell.af.mil or mail to: Managing Editor, Strategic Studies Quarterly, Air War College, 325 Chennault Circle, Maxwell AFB, AL 36112-6427.

Submissions should be in MS Word-compatible format. Contributors are asked to include storage medium when submitting by mail.

Air University is a major component of Air Education and Training Command and is the intellectual and leadership center of the Air Force. Air University's eight colleges and schools provide the full spectrum of Air Force education, from pre-commissioning to the highest levels of professional military education, including degree granting and professional continuing education for officers, enlisted, and civilian personnel throughout their careers.

Media representatives who would like to schedule an interview with Cain can contact Phil Berube, Air University Public Affairs, at the contact information listed above.

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**Advanced Concept Technology Demonstrations (ACTDs)**
www.acq.osd.mil/actd/
Accomplishments, articles, speeches, guidelines, and POCs.

**Aging Systems Sustainment and Enabling Technologies (ASSET)**
http://asset.okstate.edu/asset/index.htm
Government-academic-industry partnership.

**Air Force (Acquisition)**
www.safaq.hq.af.mil/
Policy; career development and training opportunities; reducing TOC; library; links.

**Air Force Center for Systems Engineering**
www.afit.edu/cse/
Processes, practices, tools, and resources for the SE workforce.

**Air Force Materiel Command (AFMC) Contracting Laboratory's FAR Site**
http://farsite.hill.af.mil/
FAR search tool; Commerce Business Daily announcements (CBDNet); Federal Register; electronic forms library.

**Army Acquisition Support Center**
http://asc.army.mil
Policy; *Army AL&T* Magazine; programs; career information; events; training .

**Assistant Secretary of the Army (Acquisition, Logistics & Technology)**
https://webportal.saalt.army.mil/
ACAT Listing; Bulletin; digital documents library; organization.

**Association for the Advancement of Cost Engineering International (AACE)**
www.aacei.org
Planning and management of cost and schedules; online library, bookstore, etc.

**Association of Old Crows (AOC)**
www.crows.org
News; conventions, courses; *Journal of Electronic Defense*.

**Association of Procurement Technical Assistance Centers (APTAC)**
www.aptac-us.org
PTACs nationwide assist businesses with government contracting issues.

**Central Contractor Registration**
www.ccr.gov
U.S. government vendor database. Registration, annual revalidation required.

**Committee for Purchase from People Who are Blind or Severely Disabled**
www.jwod.gov
Information and guidance on the Javits-Wagner-O'Day (JWOD) Act.

**Defense Acquisition University**
www.dau.mil
Publications, training, and education news for the AT&L workforce.

**DAU Alumni Association**
www.dauaa.org
Acquisition tools and resources; links; career opportunities; member forums.

**DAU Distance Learning Courses**
www.dau.mil/registrar/enroll.asp
DAU online courses.

**Defense Advanced Research Projects Agency (DARPA)**
www.darpa.mil
News releases; current solicitations; "Doing Business with DARPA."

**Defense Electronic Business Program Office (DEBPO)**
www.acq.osd.mil/scst/index.htm
Policy; newsletters; Central Contractor Registration; assistance centers.

**Defense Information Systems Agency (DISA)**
www.disa.mil
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**Defense Systems Management College (DSMC)**
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**Defense Technical Information Center**
www.dtic.mil/
Scientific and technical information network—one of DoD's largest available repositories of scientific, research, and engineering information.

**Director, Defense Procurement and Acquisition Policy (DPAP)**
www.acq.osd.mil/dpap
Policy news and events; reference library; DPAP organizational breakout; acquisition education and training policy, guidance.

**DoD Defense Standardization Program**
www.dsp.dla.mil
DoD standardization; points of contact; FAQs; military specifications and standards reform.

**DoD Enterprise Software Initiative**
www.esi.mil
Joint project to implement true software enterprise management process in DoD.

**DoD Inspector General Publications**
www.dodig.osd.mil/pubs/
Audit and evaluation reports; IG testimony; planned and ongoing audit projects.

**DoD Office of Technology Transition**
www.acq.osd.mil/ott/
Information about and links to OTT's programs.

**DoD Systems Engineering**
www.acq.osd.mil/ds/se
Policies, guides, other information on SE and related topics, including developmental T&E and acquisition program support.

**Earned Value Management**
www.acq.osd.mil/pm
Implementation of earned value management; latest policy changes; standards; international developments.

**Electronic Industries Alliance (EIA)**
www.eia.org
Government relations; links to issues councils; market research assistance.

**Electronic Subcontracting Reporting System**
www.esrs.gov
Prime contractors report on subcontracting goals required by contracts.

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www.epls.gov
Identifies parties excluded from receiving certain federal contract, subcontracts, etc.

**Federal Acquisition Institute (FAI)**
www.faionline.com
Learning opportunities; information access and performance support.

**Federal Acquisition Jump Station**
http://prod.nais.nasa.gov/pub/fedproc/home.html
Procurement and acquisition servers by contracting activity; CBDNet; library.

**Federal Agency Registration**
www.bpn.gov/far
For entites that buy from and sell to other federal entities.

**Federal Aviation Administration (FAA)**
www.asu.faa.gov

Online policy and guidance for all aspects of the acquisition process.

**Federal Business Opportunities**
www.fbo.gov/
Federal government procurement opportunities over $25,000.

**Federal Procurement Data System-Next Generation**
https://www.fpds.gov/
Public access to reports on federal contract awards.

**Federal R&D Project Summaries**
www.osti.gov/fedrnd/about
Information on federal research projects; search databases at different agencies.

**Federal Research in Progress**
http://grc.ntis.gov/fedrip.htm
Information on federally funded projects in the physical sciences, engineering, life sciences.

**Federal Technical Data Solution**
www.fedteds.gov
Secure sharing of technical data for response to solicitations.

**Fedworld Information**
www.fedworld.gov
Central access point for searching, locating, ordering, and acquiring government and business information.

**Government Accountability Office**
www.gao.gov
GAO reports;policy and guidance; FAQs.

**General Services Administration**
www.gsa.gov
Online shopping for commercial items to support government interests.

**Government-Industry Data Exchange Program (GIDEP)**
www.gidep.org/
Federally funded co-op of government-industry participants, providing electronic forum to exchange technical information.

**GOV.Research_Center**
http://grc.ntis.gov
Dept. of Commerce, National Technical Information Service, and National Information Services Corporation joint venture access to government information.

**Integrated Dual-Use Commercial Companies (IDCC)**
www.idcc.org
Information for technology-rich commercial companies on doing business with the federal government.

**International Test & Evaluation Association (ITEA)**
www.itea.org

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**www.jfcom.mil**
"Transformation laboratory" that develops and tests future concepts for warfighting.

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**https://jfiit.eglin.af.mil** (*Accessible from .gov and .mil domains only.*)
USJFCOM lead agency to investigate, assess, and improve integration, interoperability, and operational effectiveness of Joint Fires and Combat Identification.

### Joint Interoperability Test Command
**http://jitc.fhu.disa.mil**
Policies and procedures for interoperability certification; lessons learned; support.

### Joint Spectrum Center (JSC)
**www.jsc.mil**
Operational spectrum management support to the Joint Staff and COCOMs; R&D into spectrum-efficient technologies.

### Library of Congress
**www.loc.gov**
Research services; Congress at Work; Copyright Office; FAQs.

### MANPRINT (Manpower and Personnel Integration)
**www.manprint.army.mil**
POCs for PMs; regulations; policy letters from Army Acquisition Executive; briefings on MANPRINT program.

### National Aeronautics and Space Administration's Commercial Technology Office (CTO)
**http://technology.grc.nasa.gov**
Promotes competitiveness of U.S. industry through commercial use of NASA technologies and expertise.

### National Contract Management Association (NCMA)
**www.ncmahq.org**
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### National Defense Industrial Association (NDIA)
**www.ndia.org**
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### National Geospatial-Intelligence Agency
**www.nima.mil**
Imagery; maps and geodata; Freedom of Information Act resources; publications.

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**www.navsea.navy.mil**
Total Ownership Cost; documentation and policy.

### Navy Acquisition and Business Management
**www.abm.rda.hq.navy.mil**
Policy, training, guides, and assistance for the Standardized Procurement System community.

### Navy Acquisition, Research and Development Information Center
**www.onr.navy.mil/sci_tech**
News, publications, regulations, and technical reports; doing business with Navy.

### Navy Best Manufacturing Practices Center of Excellence
**www.bmpcoe.org**
Best manufacturing and business practices in use throughout industry, government, academia.

### Naval Air Systems Command (NAVAIR)
**www.navair.navy.mil**
Advanced warfare technology through worldwide network of aviation technology experts.

### Office of Force Transformation
**www.oft.osd.mil**
Transformation policies, programs, and projects DoD- and Services-wide.

### Office of Small and Disadvantaged Business Utilization
**www.acq.osd.mil/sadbu**
Program and process information; current solicitations; Help Desk information.

### Online Representations and Certifications Application
**www.bpn.gov/orca**
Reps and certs collected in Section K of every federal solicitation.

### Open Systems Joint Task Force
**www.acq.osd.mil/osjtf**
Open Systems education and training opportunities; studies and assessments; projects, initiatives, plans; library.

### Parts Standardization and Management Committee (PSMC)
**www.dscc.dla.mil/psmc**
Government-industry collaborative effort for parts management and standardization through commonality of parts and processes.

### Past Performance Information Retrieval System
**www.ppirs.gov**
Federal acquisition personnel report and review contractor performance.

### Performance-based Logistics Toolkit
**https://acc.dau.mil/pbltoolkit**
Process model for development, implementation, and management of PBL strategies.

### Project Management Institute
**www.pmi.org**
Publications; information resources; professional practices; career certification.

### Small Business Administration
**www.sbaonline.sba.gov**
Communications network for small businesses.

### SOLE-International Society of Logistics
**www.sole.org**
Online desk references that link to logistics problem-solving advice; Certified Professional Logistician certification.

### Software Program Managers Network
**www.spmn.com**
Support and publications on effective software development best practices.

### Space and Naval Warfare Systems Command (SPAWAR)
**https://e-commerce.spawar.navy.mil**
SPAWAR business opportunities; acquisition news; solicitations; small business information.

### System of Systems Engineering Center of Excellence (SoSECE)
**www.sosece.org**
Advances development, evolution, practice, and application of the system of systems engineering discipline.

### Under Secretary of Defense (AT&L)
**www.acq.osd.mil/**
USD(AT&L) documents; streaming videos; links.

### USD(AT&L) Knowledge Sharing System
**http://akss.dau.mil**
Automated acquisition reference tool covering mandatory and discretionary practices.

### U.S. Coast Guard
**www.uscg.mil**
News and current events; services; points of contact; FAQs.

### U.S. Department of Transportation MARITIME Administration
**www.marad.dot.gov/**
Information and guidance on shipping cargo on U.S. flag vessels.

### Wage Determinations Online
**www.dol.gov**
For service contracts subject to McNamara-O'Hara Service Contract Act and construction contracts subject to Davis-Bacon Act.

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Links current at press time. To add a non-commercial defense acquisition/acquisition and logistics-related Web site to this list, or to update your current listing, please fax *Defense AT&L* at 703-805-2917 or e-mail datl(at)dau(dot)mil (use correct e-mail protocol). *Limit descriptions to 10 words.* DAU encourages the reciprocal linking of its home page to other interested agencies. Contact: webmaster@dau.mil.

# *Defense AT&L* Writer's Guidelines in Brief

## Purpose

*Defense AT&L* magazine is intended to instruct the DoD acquisition, technology & logistics workforce and defense industry on policies, trends, legislation, senior leadership changes, events, and current thinking affecting program management and defense systems acquisition.

## Subject Matter

**We do print** feature stories that include real people and events. Stories that appeal to our readers—who are senior military personnel, civilians, and defense industry professionals in the program management/acquisition business—are those taken from real-world experiences vs. pages of researched information. **We don't print** academic papers, fact sheets, technical papers, or white papers. We don't use endnotes or references in our articles. Manuscripts meeting those criteria are more suited for DAU's journal, *Defense Acquisition Review*.

*Defense AT&L* reserves the right to edit manuscripts for clarity, style, and length. Edited copy is cleared with the author before publication.

## Length

Articles should be 1,500 – 2,500 words.

## Author bio

Include a brief biographical sketch of the author(s)—about 25 words—including current position and educational background. We do not use author photographs.

## Style

Good writing sounds like comfortable conversation. Write naturally; avoid stiltedness and heavy use of passive voice. Except for a rare change of pace, most sentences should be 25 words or less, and paragraphs should be six sentences. Avoid excessive use of capital letters and acronyms. Define *all* acronyms used. Consult "Tips for Authors" at <www.dau.mil/pubs/damtoc.asp>. Select "Submit an Article to *Defense AT&L*."

## Presentation

Manuscripts should be submitted as Microsoft Word files. Please use Times Roman or Courier 11 or 12 point. Double space your manuscript and do not use columns or any formatting other than bold, italics, and bullets. Put your name on every page. *Do not embed or import graphics into the document file*; they must be sent as separate files (see next section).

## Graphics

We use figures, charts, and photographs (black and white or color). Photocopies of photographs are not acceptable. Include brief numbered captions keyed to the figures and photographs. Include the source of the photograph. We publish no photographs or graphics from outside the DoD without written permission from the copyright owner. We do not guarantee the return of original photographs.

Digital files may be sent as e-mail attachments or mailed on zip disk(s) or CD. *Each figure or chart must be saved as a separate file* in the original software format in which it was created and must meet the following publication standards: JPEG or TIF files sized to print no smaller than 3 x 5 inches at a minimum resolution of 300 pixels per inch; PowerPoint slides; EPS files generated from Illustrator (preferred) or Corel Draw. For other formats, provide program format as well as EPS file. Questions on graphics? Call 703-805-4287, DSN 655-4287 or e-mail datl(at)dau(dot)mil*. Subject line: *Defense AT&L graphics*.

## Clearance and Copyright Release

All articles written by authors employed by or on contract with the U.S. government must be cleared by the author's public affairs or security office prior to submission.

Authors must certify that the article is a work of the U.S. government. Go to < www.dau.mil/pubs/damtoc.asp>. Select "Certification as a Work of the U.S. Government" to download the form (PDF). Print, fill out in full, sign, and date the form. Submit the form with your article or fax it to 703-805-2917, ATTN: *Defense AT&L*. *Articles will not be reviewed without the copyright form*. Articles printed in *Defense AT&L* are in the public domain and posted to the DAU Web site. In keeping with DAU's policy of widest dissemination of its published products, we accept no copyrighted articles. We do not accept reprints.

## Submission Dates

| Issue | Author's Deadline |
|---|---|
| January-February | 1 October |
| March-April | 1 December |
| May-June | 1 February |
| July-August | 1 April |
| September-October | 1 June |
| November-December | 1 August |

If the magazine fills before the author deadline, submissions are considered for the following issue.

## Submission Procedures

Submit articles by e-mail to datl(at)dau(dot)mil* or on disk to: DAU Press, ATTN: Judith Greig, 9820 Belvoir Rd., Suite 3, Fort Belvoir VA 22060-5565. Submissions must include the author's name, mailing address, office phone number (DSN and commercial), e-mail address, and fax number.

Receipt of your submission will be acknowledged in five working days. You will be notified of our publication decision in two to three weeks.

* Please use correct e-mail protocol. The address is spelled out here to prevent automatically generated spam from links in the online magazine.

## http://www.dau.mil/pubs/damtoc.asp